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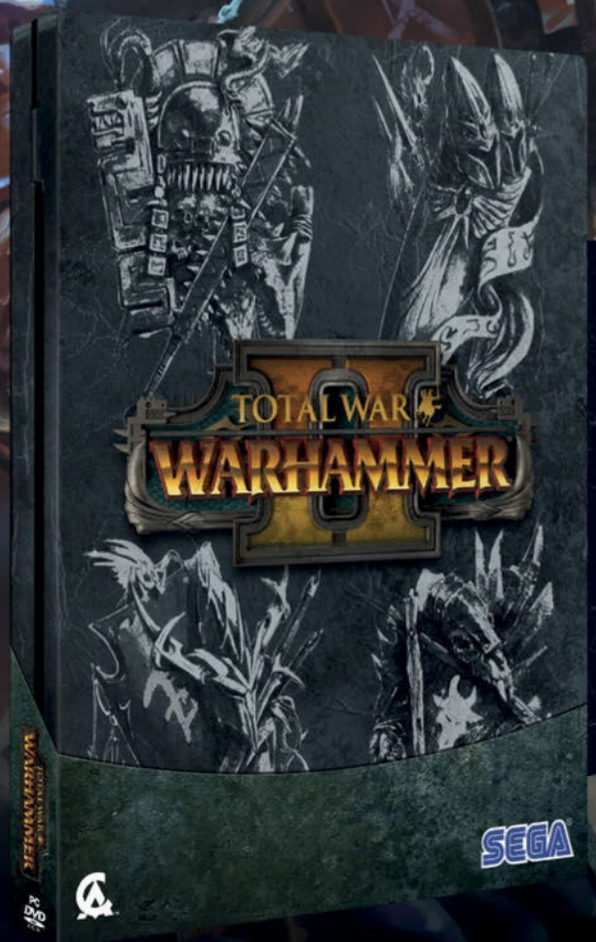

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M

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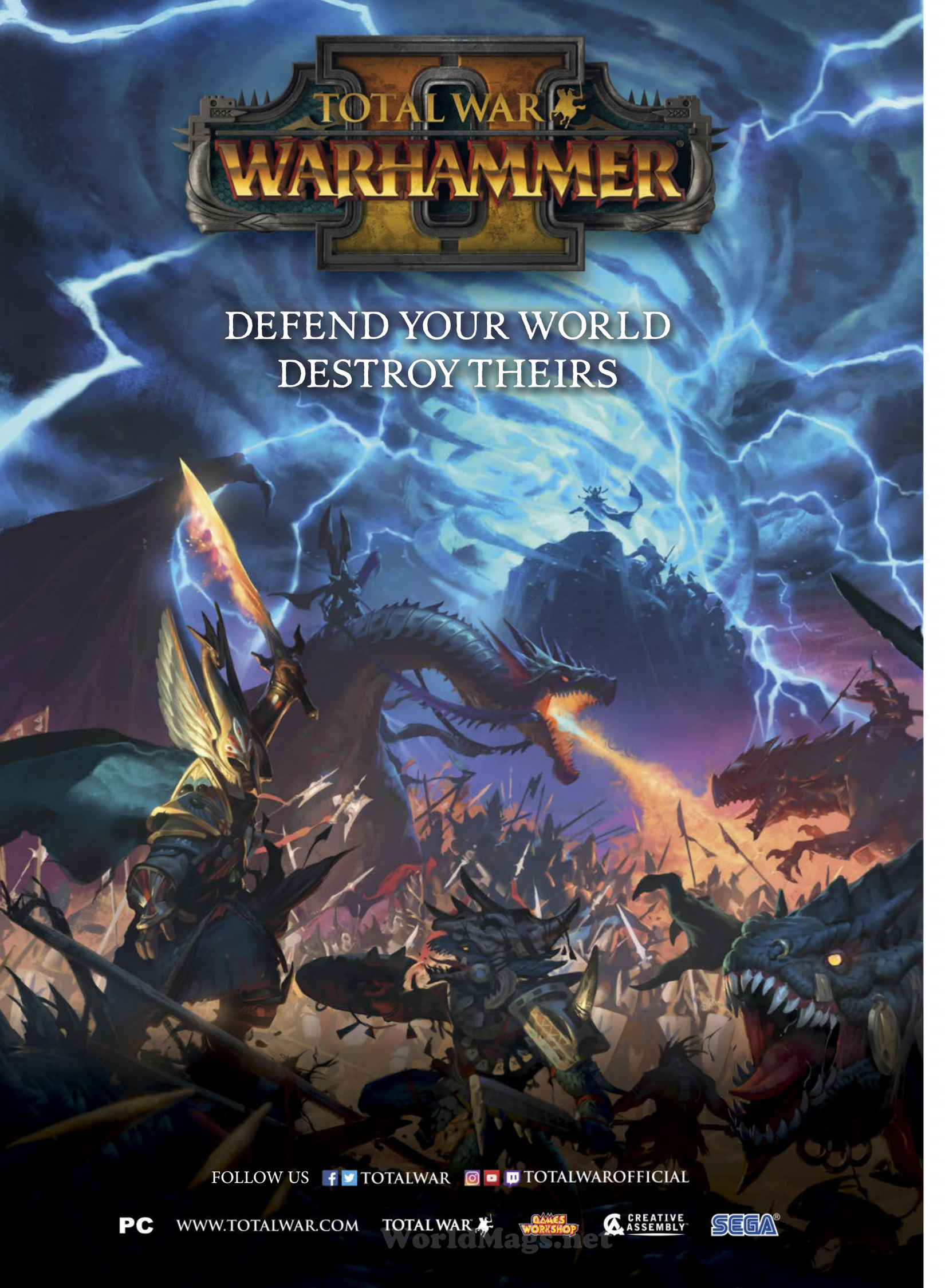

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MAD WORLD

So the flood has begun. From now until Christmas there is no slow period for games. Every month will see more and more games pouring into the market looking for your hard earned money. We'll do our best to cover as many of these games as possible each month, but if there's anything in particular you want us to take a look at, let us know via email, on our FacePage or via email.

This issue got off to an interesting start when PCPP was accused, in as many words, of being fake news. This initial email that I at first took as being some kind of Trump gag contained a link to a twitter thread from a PR person claiming we didn't interview his client at Gamescom, so the interview on our website was fake. The first part is true. We didn't interview his client at Gamescom. The interview in question had been published in the magazine much earlier and had been migrated online after the issue went off sale. We could, and should have done a better job of pointing out the interview was previously published in the magazine (a problem that was quickly rectified), but even so, jumping to a fake interview conclusion is a strange step for anyone to take. Why fake an interview with a developer with a strong but niche audience?

Anyway, while dealing with fallout, we discovered something we never thought we would – a Reddit gaming community that was not only polite, but were also willing to wait for facts to come in before coming to conclusions. The actual fans of the developer at the centre of the "fake" interview controversy were more trusting, polite and rational than people tangentially interested in a Twitter thread. Trump is the US president, Nazis are walking the streets and Reddit users are being nice. The world truly is topsy turvy.

Daniel Wilks
Sleepless One
@drwilkenstein

QUOTES OF THE MONTH

"You're still a goddamn monster"

"Malky is a cholo - just look at him"

"I like when the horse starts drifting"

PC PowerPlay

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Inbox

LETTER OF THE MONTH WINS!

Write in to PCPP with your rants, considered opinions, and endless run-on sentences of pure awesome. The address is letters@pcpowerplay.com.au. Each letter read by hand! Letter of the month wins a copy of Assassin's Creed: Origins!

THE PRODIGAL RETURNS

Heya Guys, remember me. Letter of the Month from Issue #55.

Wanted to drop a line, I'm an aging gamer who's still kicking it. Maybe I should send you a photo for your magazine, I'm still gaming on my old systems, still got a C64, Amiga and PC setup in the same room, all working, and used almost daily, while banging out the latest and greatest on the PC and PS4.

I recently realised how much I missed some of that older stuff, something those young kids won't know or understand till they reach my age, or I laugh when they go "oh man, remember the PS2, that was ages ago"… pfft, they have NO idea. So during one rainy Sunday afternoon I got thinking, I missed my ZZap64, my CU Amiga and my PC Powerplay, all shoved aside because technology marched on, and moving out of home meant I couldn't possibly carry all these books from home to home as I was in the rent cycle. But here I am sitting in my own house now, so I starting looking and managed to find all but a dozen back issues of PC Powerplay, bought the lot and bought a 24 month subscription as well. Now I'm part of the solution and not the problem I thought…. So I thought I'd say hello again, great to hold a magazine in my hand after all these years and screw anyone who doesn't agree ha! Cheers to the future, it looks rosy but also, a nod to the past for helping us to get here.

Ivan Wheelwright

Thanks Ivan, nice of you to come back to the warm slightly musty embrace of PCPP. None of us are really spring chickens anymore, with the majority of us being in our 40s and reminiscing about days long past when we would waste way too much work time playing Quake 3 Arena, or having to take screenshots by either recording footage of games and trying to find a non-interlaced frame, or literally taking photos of the TV screen. To welcome you back, have another letter of the month prize.

CANS ON STRING

I was just trying to host a game of Dead Before Daylight and I can only get one in four players into the game and I read that the issue was "internet speed".

And after doing some research I realise that Australia rates a whopping 50th in the world for internet speeds. Countries such as Bulgaria and Kenya are a lot better placed in the world of internet speeds than Australia.

To that I say good luck to them.

But I always thought Australia was the tech country. I always heard from our corporate media that Australia loves technology.

Yet 50th in the world? Really!

I know the NBN is on its way and so I've been hearing for years. My area doesn't get it until 2018 and at this moment in time I don't know any friends who have it.

I just hope it's a great service, I'm not holding my breath yet I hope it gives gamers in Australia the speed and the service that i feel we have the capability to receive.

Regards

Mitchell Hall

Hi Mitchell – I wouldn't hold my breath either. The hybrid NBN we are getting in Australia is already outdated and as a number of people who have already been hooked up can testify, the speed is often no better than an ADSL connection. Unfortunately the rollout has been such a mess that it will be hard for subsequent governments to fix the mess and give us an up to date NBN, as many voters won't like having to spend billions more dollars to fix something that is already seriously over budget.

A WINNER IS YOU!

Congratulations to the following for winning our issue **#264 subs prize, a copy of Agents of Mayhem.**

Gavin Roger
Nick Stevens
Marc Muston
Anthony Tambasco
Peter McLintosh
Victor Bowman
Joseph Tracey
Karl Davis
Stephen Wadsworth
Tobias Goldstone

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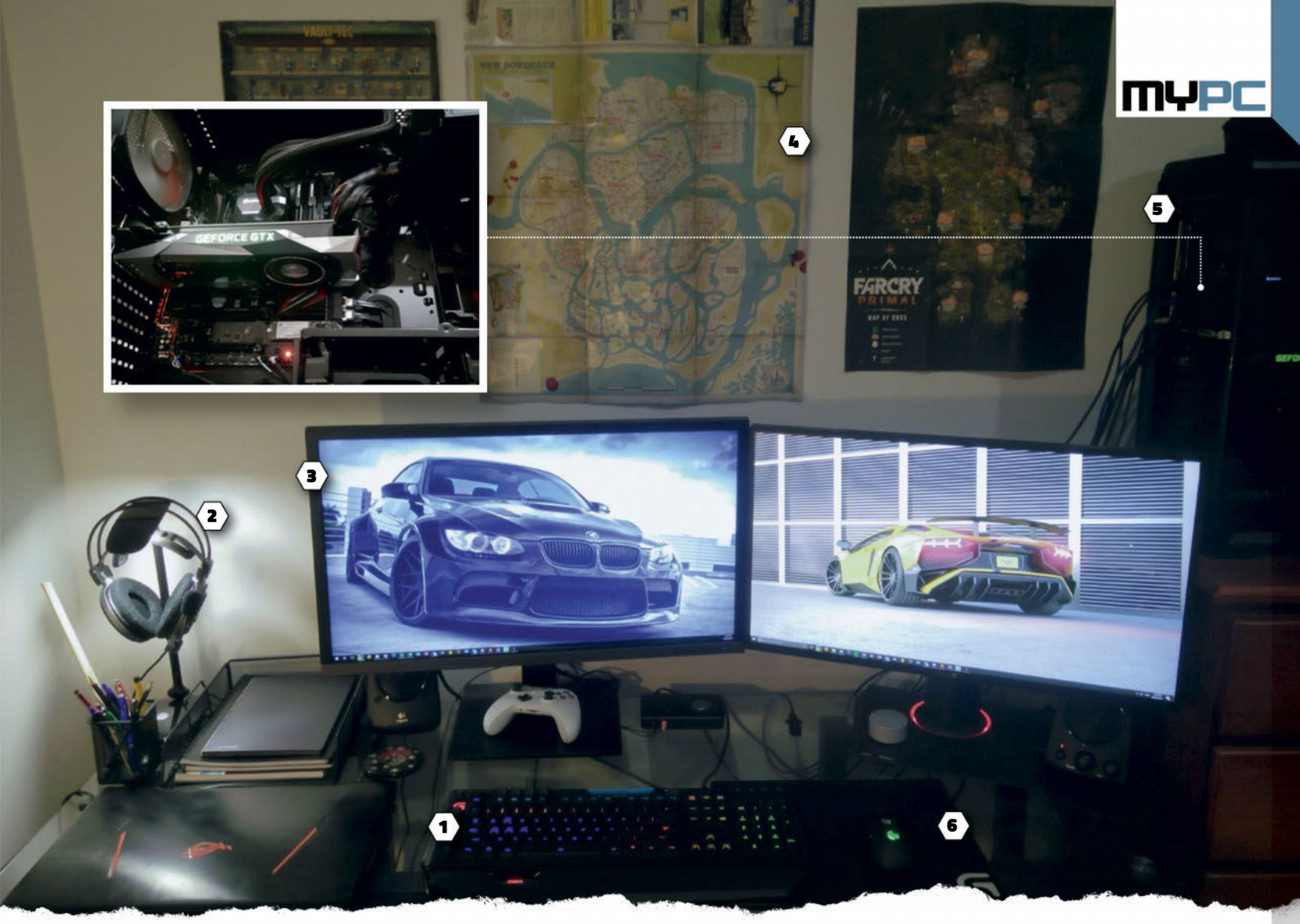

LIAM, 20, QLD

This month's MY PC brought to you by Western Digital.

FOUR MOST IMPRESSIVE ELEMENTS:
1) Dual Samsung 4K Monitor (for movies/work/boring stuff) & ASUS 144hz 2K Monitor (for gaming).
2) GTX 1080 Founders Edition - Jumping from a GTX 460 to the 1080 saw a slight increase in performance!
3) Corsair water cooling loop for my i7-6700K.
4) Xonar U7 Sound Card + Audio-Technica ADG1X - gives me control of volumes I didn't even know existed.

LAST UPGRADE: The Asus sound card and headset combo, which cost a bit but was 100% worth it as I can now hear people scream on the plane in PUBG with crystal clarity.

DREAM UPGRADE: Maybe changing my card up to a GTX 1080Ti or even chucking in another 1080 in SLI.

FAVOURITE FEATURE: Asus ROG monitor - not that I can see 144 FPS but it's nice to know it's there.

WHY SO SPECIAL: My first PC was from a second hand store and was the biggest piece of garbage I ever had (its power button had been replaced with a LEGO switch). Ever since then I have loved building and perfecting my setup over the years to get to where I am now, with my dream setup that I am almost content with... almost.

1. Is that an Atlas Dawn?
2. So you're the target market for headphone stands! We always wondered.
3. Your boring monitor is still pretty exciting
4. Junior cartographer Wilks approves of the maps
5. We like the PC placement - it's like it's lording over the monitors and peripherals
6. Someone is a fan of Logitech

LIAM WINS!

Thanks to the good people at WD, Liam scores himself a 1Tb My Passport Ultra portable drive. Enjoy!

WANT FREE STUFF? Send your MyPC entry today to *mypc@pcpowerplay.com.au*. Include the four most impressive elements of its hardware, your last upgrade, your dream upgrade, your favourite feature and what you think makes your PC special. Make sure to include your name, age and location. And last but not least, attach a 5MP or bigger image of your PC! No camera phone shots, and make sure it's in focus!

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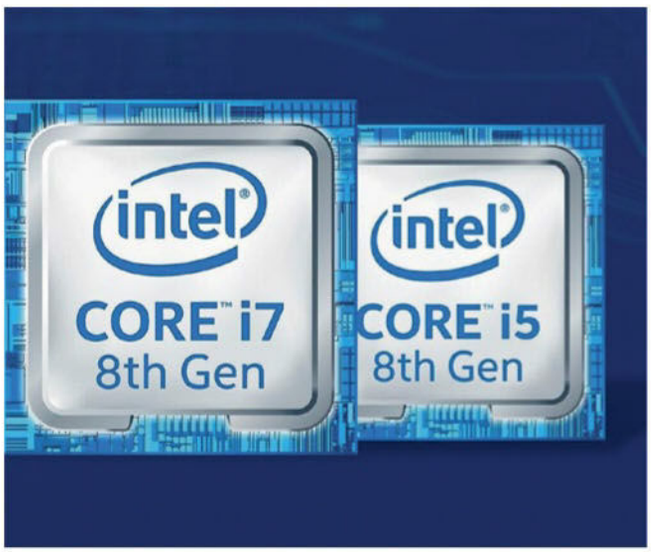
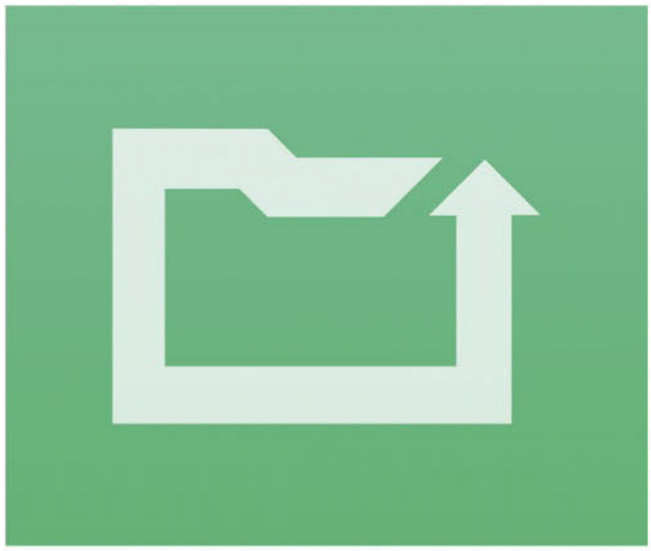


INTEL UNVEILS 8TH GENERATION CORE CPUS, KABY LAKE-R

Intel has officially launched its 8th generation of Core processors. These new chips are a refresh of the previous 7th generation Kaby Lake units and have a 15W TDP, making them ideal for slim, full featured laptops. The i7-8650U, i7-8550U, i5-8350U and i5-8250U are all 4 core parts and all have Hyperthreading enabled - a first for a 15W part. The i7s have an 8MB L3 cache an the i5s a 6MB cache. Intel has also included UHD 620 integrated graphics, which is capable of 4K video playback and near real-time 4K rendering with Intel Quicksync. Intel are claiming a huge 40% increase in multi-tasking performance versus the previous generation CPUs and a 2.3x speed increase versus a 5-year-old Ivy Bridge based system. A big chunk of that performance increase are the two new Hyperthreaded cores, but a large part is also due to an improvement in design optimisation and manufacturing processes compared to the 7th-generation chips.

CRASHPLAN ENDS CONSUMER BACKUP PRODUCT, FORCES USERS TO COUGH UP OR LEAVE

The popular CrashPlan backup service has announced it is ending its home user offerings to focus on small business and enterprise customers. Those with current CrashPlan for Home subscriptions will be allowed to use the service for the duration plus an extra 60-day grace period. After this grace period, all backups will be automatically deleted unless users migrate to CrashPlan for Small Business (formerly CrashPlan Pro), which is near-identical to CrashPlan Home but twice the price at US$120 a year. CrashPlan is also offering users the option of a 50% discount to use Carbonite, but you'll have to start your backup from scratch, there's no migration from CrashPlan to Carbonite. Sounds like it's a perfect time for CrashPlan users to re-assess their backup solution and see what else is on the market.



802.11AX, A NEW WI-FI STANDARD THAT'LL EASE CONGESTION AND INCREASE SPEEDS

There is yet another Wi-Fi standard coming to a router near you. It's called 802.11ax and it is designed from the ground up to deal with congestion. Of course, there's a raw speed boost, thanks to wider and multiple channels that greatly increase throughput to a theoretical maximum of 3.5Gbps (4x streams with 160 MHz wide channels) - a huge boost in speed and total capacity. Wireless network congestion is improved via a technology first seen on LTE radios, called orthogonal frequency division multiple access (ODMFA). The use of OFDMA means up to 30 clients can share each channel instead of having to take turns broadcasting and listening. Another benefit is that the 2.4 GHz and 5 GHz bands can be combined creating even more channels for data. The first consumer 802.11ax products such as USB adaptors and access points should appear in early 2018.

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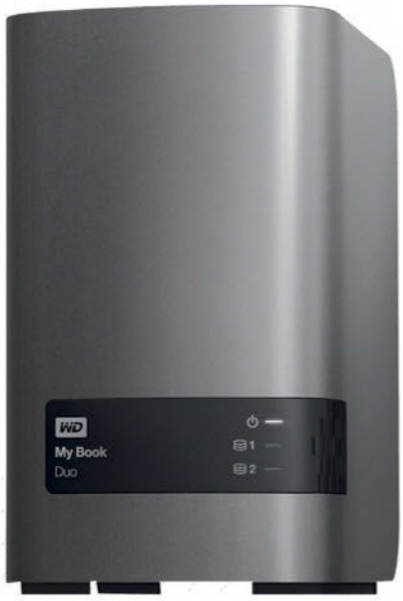
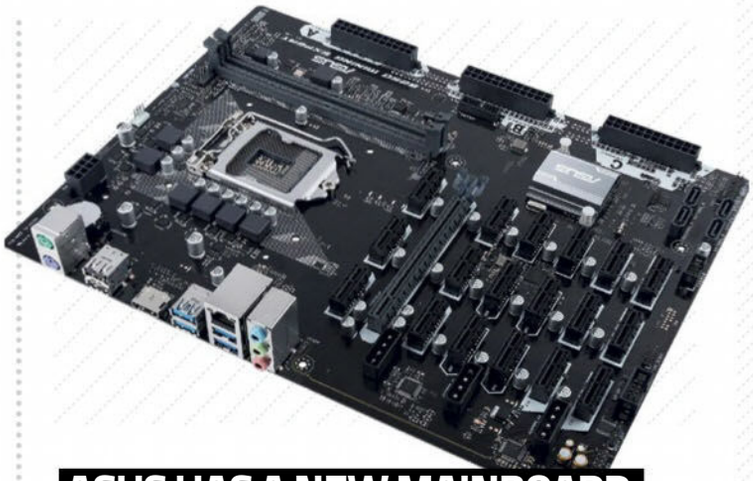
WESTERN DIGITAL'S NEW BIGGER, FASTER AND BETTER MY BOOK DUO EXTERNAL HDD

Western Digital has released a new version of its popular My Book Duo external storage system. The new WD My Book Duo sports two 3.5" WD Red HDDs in RAID 0 or 1 mode and in a fetching new enclosure utilising a versatile USB 3.0 Type-C port. Capacities vary from 4TB to 20TB, 5400 RPM spindle speeds and feature 64 MB, 128 MB, or 256 MB of cache. Transfer rates of WD Red drives vary from 147 MB/s to 360 MB/s depending on the capacity of the drives - the bigger the drive, the faster the speeds. The My Book Duo storage system keeps your data secure with hardware AES-256 encryption enabled via the included WD Security software. WD ships the My Book Duo products with the WD Backup suite, that'll automatically backup data from your computer, as well as from cloud services like Dropbox, Google Drive, OneDrive, Facebook, and Instagram.





ASUS HAS A NEW MAINBOARD FOR CRYPTOCURRENCY MINERS THAT'LL SUPPORT 19 GPUS ON A SINGLE BOARD

Cryptocurrency miners looking to extract the most mining density from their rigs, look no further than the new ASUS B250 Expert Mining mainboard. This new mainboard has 19 PCIe 1x slots, so when used with graphics card risers, can support 19 cards on a single mainboard. This is of keen interest to cryptocurrency miners as it reduces the need to spend money on additional CPUs, storage and RAM to support multiple GPUs. ASUS have also included tripe ATX12V (24-pin) connectors so you can hook up the necessary three beefy PSUs to power those cards, along with voltage stabilisation capacitors for each slot and a mining specific BIOS for increased hash rates. The ASUS B250 Mining Expert is based on the B250 chipset with an LGA1151 socket, 2400MHz DDR4 RAM support and is otherwise a regular, run of the mill mainboard.

SHUTTLE'S LATEST PC PACKS A GTX1060 GPU IN A TINY LITTLE BOX THAT FITS IN THE PALM OF YOUR HAND

Shuttle have updated their mini gaming PC range with the Shuttle X1 - an extremely small desktop PC that fits in the palm of your hand. It's basically an Intel NUC on steroids. The Shuttle X1 is based on Intel's mobile CPUs, the Core i5-7300HQ and Core i7-7700 HQ. To achieve smooth gaming performance, Shuttle managed to include an NVIDIA GeForce GTX 1060 3GB MXM GPU module. Choose between 8GB or 16GB of DDR4 RAM, 128GB or 256GB M.2 SSDs and a 1TB HDD. Connectivity wise, the Shuttle X1 offers a typical set of I/O such as 802.11ac Wi-Fi, Bluetooth, a gigabit Ethernet port, one USB 3.0 Type-C connector, four USB 3.0 Type-A headers (two on the front, two on the rear), four USB 2.0 ports, three HDMI outputs (one for a VR headset), one DisplayPort, one SD card reader as well as one 3.5-mm audio jack.

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If you've ever been to an Upgrade Australia event, you know what an incredible night it is – and we hope to see you at the next one! If you've never come along, and you're in Sydney on the evening of September the 22nd, then we extend an invitation to attend a truly fun night where you get hands-on and close up with the very latest PC gear.

IT'S FREE, AND A WHOLE LOT OF FUN

CHECK OUT THE GEAR – Leading PC and tech companies from around the world come to Upgrade Australia to display the coolest new gear and talk you through the awesomes

EAT, DRINK AND BE MERRY – We always lay on a feed and free drinks

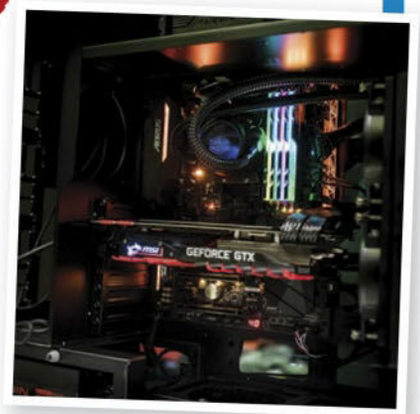
WIN WIN WIN – Upgrade Australia is Booty Central, with many attendees leaving with lovely freebies – everything from cool gifts to seriously high end and valuable premium gear. If you've been to Upgrade Australia before you know how much of a highlight this is. We take no responsibility for any injuries caused when we throw goodies from the stage into the welcoming arms of the crowd!

IT'S MODTASTIC – See the truly incredible state of the art PC mods built by some of the world's top modders. You won't believe your eyes, these things are truly beautiful and the craftsmanship and creativity must be seen to be believed.

WIN THE PCPP BEAST!

Over the course of the evening we will be building a very special PC, and someone there – it could be you – will be taking it home.

The PCPP Beast is a high-end gaming PC that is the envy of all. With premium components throughout, and assembled by one of Australia's top builders, this is a PC to dominate. The last Beast we built and gave away at Upgrade Australia was worth a whopping $6745!



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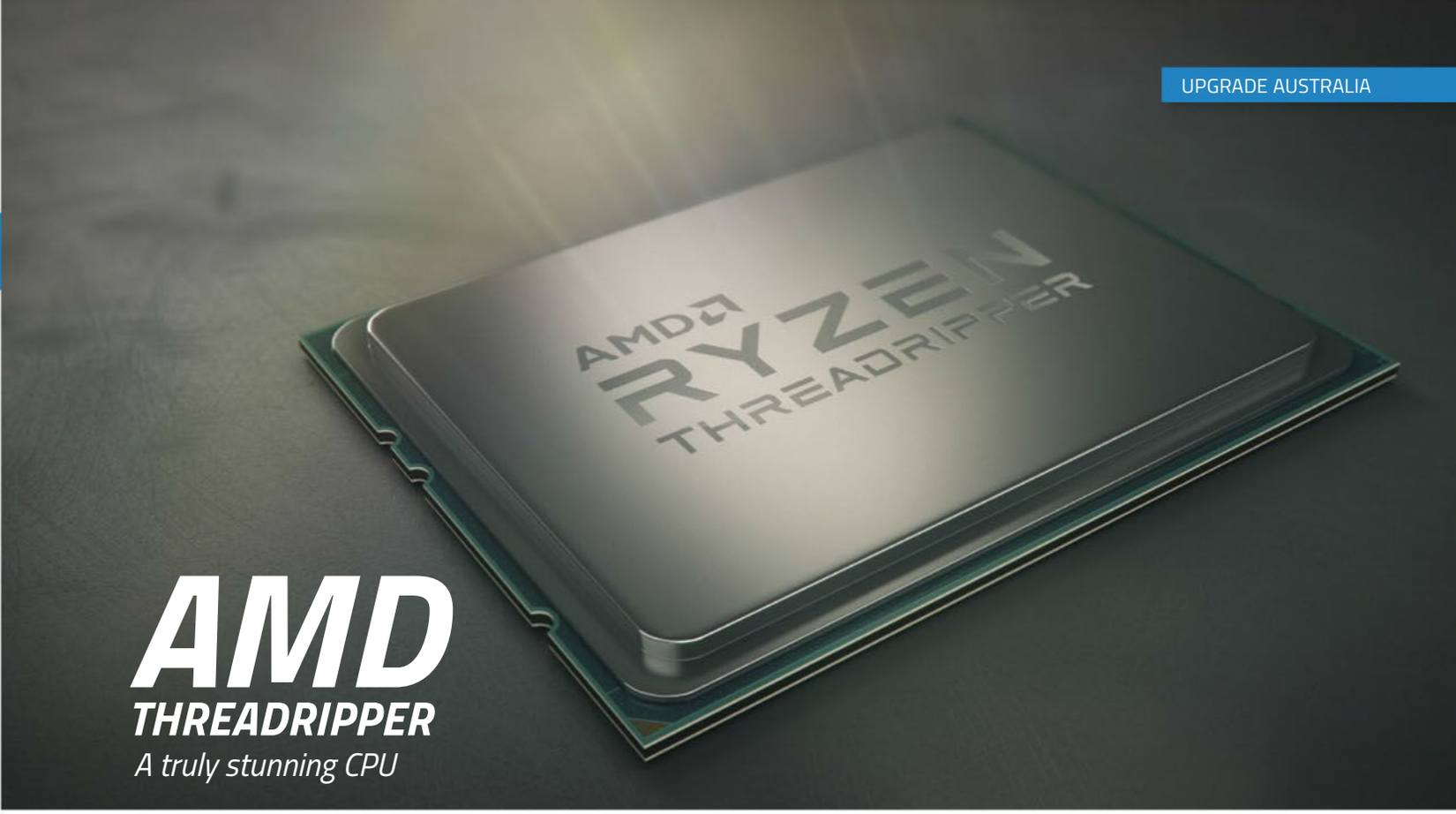

AMD THREADRIPPER

A truly stunning CPU

Cores, cores, cores. You want CPU cores? Well AMD's brand new Ryzen Threadripper CPUs has loads of 'em! Threadripper takes the Zen microarchitecture from the wildly popular Ryzen CPUs and takes it to a whole new level. AMD hasn't simply slapped a few extra cores and threads onto some existing Ryzen CPUs – nope, there's also a whole new chipset built around leveraging the immense Threadripper CPU performance and providing oodles of I/O professional users have been crying out for.

AMD Threadripper CPUs come in three flavours. The behemoth 16 core/32 thread Threadripper 1950X, a 12 core/24 thread Threadripper 1920X and an 8 core/16 thread Threadripper 1900X . Yes, you read correctly, 16 cores and 32 threads in a single CPU! All have a max boost clock speed of 4.0GHz and utilising AMD's eXtended Frequency Range (XFR) boost technology, clock speeds can reach 4.2GHz. Up to 40MB of cache means all the cores are properly fed.

What are all those cores good for anyway? What sort of tasks need that many threads? The focus for Threadripper is content creation. Video encoding, physically-based rendering, raytracing and software compilation all benefit from those lovely cores and threads. Tasks that can spread their load over multiple cores and threads see a huge boost in performance with Threadripper. When time is money, you want all the cores you can get your hands on.

GREAT FOR GAMING!

Gamers can also benefit from the plethora of cores available with Threadripper. Games such as The Division and Overwatch will gobble up all those cores and significantly improve in-game performance. More and more games are being developed to leverage the new multiple core CPUs currently on the market, making Threadripper ideal for your next high-end gaming rig.

Another scenario where all those cores come in handy for gamers is multi-tasking. Twitch streamers will love the ability to dedicate multiple cores to render and encode high quality video in real time and have ample cores left over for their game. There's no need to compromise on performance just because you want to show the world your gaming skills.

MEGA MEMORY

Those who need loads of memory bandwidth will love the fact Threadripper CPUs support quad-channel DDR4 and just like Ryzen, ECC too. It'll also support up to a whopping 2TB of RAM, which is serious future-proofing because, DIMMs of that huge capacity don't even exist yet! If you need a huge amount of fast, error corrected RAM, Threadripper's got you covered.

A NEW PLATFORM

Threadripper is more than just a CPU though, it also brings with it the X399 chipset which is specifically designed by AMD to be paired with Threadripper CPUs. The headline feature of the X399 are the sixty-four glorious PCIe lanes. That's enough bandwidth for two PCIe x16 graphics cards, two additional PCIe x8 graphics cards and enough lanes left over for three x4 NVMe PCIe SSDs connected directly to the CPU!

Thanks to all those PCIe lanes, motherboard manufacturers have incredible flexibility in the ports they can add. The ability to add two native USB 3.1 Gen2 ports, fourteen USB 3.1 Gen1 ports, sixteen SATA ports and 10 gigabit Ethernet PCIe networking on a single motherboard is mind-blowing.

If you're keen to see the best and latest in high-end desktop hardware, you can view AMD's amazing Threadripper range at Upgrade Australia. Watch Threadripper munch its way through multi-threaded CPU intensive tasks and gaze upon its wondrous amount of I/O. AMD reps will be on hand to answer any questions you have about their new monster of a CPU and chipset.

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ESET INTERNET SECURITY
PROTECTING YOUR DATA AND PRIVACY

Protects you in critical ways that Windows Defender doesn't

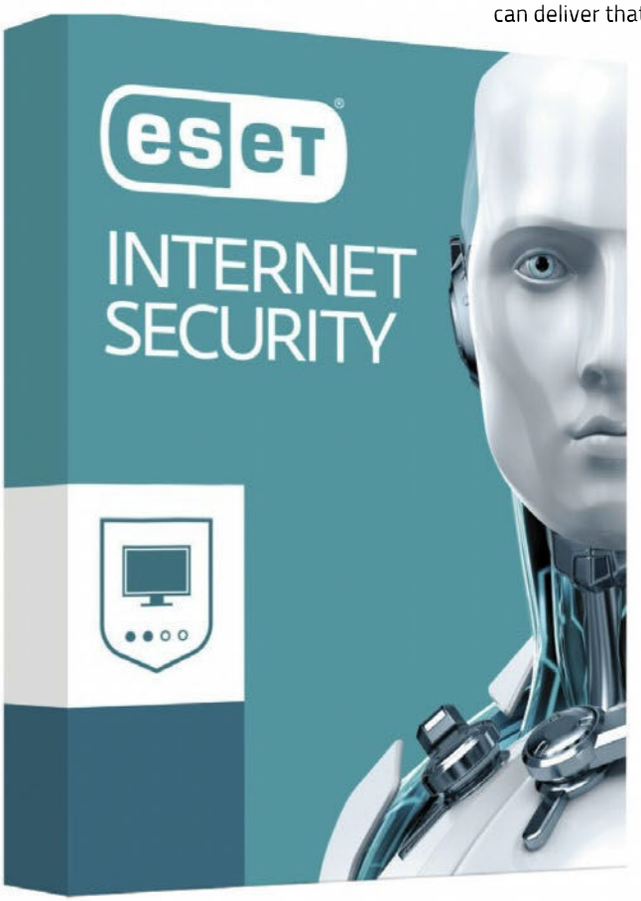
In 2017, you need security software that looks beyond the threat of virus infections. The modern threat landscape is more complex than ever before, so you need a solution that protects every facet of your online presence. And while Microsoft may claim that its Windows Defender product – built into Windows itself – is enough to keep you secure online, it's really just the bare minimum of security.

It's also no longer enough to simply be aware of the modern threat landscape. All it takes is one wrong click and even the most cautious internet user could be subject to a ransomware attack, with some hacker demanding you pay a ransom to gain access to your own files. Or you could be deceived into giving up vital personal information via an email that looks like it has come from a trusted source, such as a bank. And all the while, computer virus numbers continue to multiply.

RELIABLE, FAST AND THOROUGH

Anti-virus protection is only one part of the modern equation. Thankfully, ESET Internet Security offers award-winning protection from traditional vectors and script-based attacks, as well as protection from botnets, and exploits delivered via your web browser, PDF documents, or Java-based software. As well as being comprehensive, ESET Internet Security can deliver that protection without slowing down your PC's performance.

ESET's anti-virus solution has detected 98.8 per cent of threats in real-world testing by AV-TEST, a well-respected and independent tester of security software. Windows Defender scored only 88 per cent in similar testing, and delivered a much higher rate of false alarms. In testing by AV-Comparative last year, ESET's anti-virus software reported zero false alarms.



<ESET Internet Security offers rock solid protection

ALL-ASPECTS DEFENCE

Then there are the features that Windows Defender doesn't even come close to offering. As we live more and more of our lives online, it is important that a security solution keep our day-to-daytransactions secure. ESET's solution automatically secures online transactions with internet banking sites and payment gateways.

Ransomware attacks are becoming more and more common, but ESET Internet Security provides protection against malware that aims to encrypt your personal files. If you frequently use a webcam for online communication through services like Skype, ESET Internet Security also alerts users whenever anyone other than you try to use your camera. It also keeps an eye on the security of your router, and any unauthorised connections, while a personal firewall keeps hackers away from your PC, and helps you remain invisible while accessing public Wi-Fi hotspots.

FAMILY SAFE, FULL CONTROL

Keeping your entire family safe is also a major priority for ESET. ESET Internet Security offers a full range of parental controls that let you block categories of content that you do not want your children to see, as well as specific web sites.

All of these services are also backed by free technical support, provided either by email or over the phone, to anywhere you are the in the world – so you know you're always protected no matter where you are.

FIND OUT MORE

Come and meet the security professionals from ESET at Upgrade Australia. You'll hear up to date expert opinion about the current threat landscape, and what to look out for to help you stay safe online.

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EXPERIENCE THE POWER OF QNAP AT UPGRADE AUSTRALIA

For the most demanding NAS applications, QNAP has you covered

TVS-882BR

This powerful NAS uses 7th Generation Intel 14nm multi-core processors, providing advanced hardware with enhanced tiering storage, application-based partitioning and network traffic distribution. The TVS-882BR comes with a SATA optical disc drive (ODD) slot, allowing you to install a compatible Blu-ray Disc drive. QNAP also provides models with a preloaded ODD, allowing you to experience extensive disc applications right way. With simple installation, you can backup the content of your discs to NAS for long-term storage and easier sharing, or you can burn NAS files to disc. You can also play Blu-ray discs directly on HDTV via HDMI output through virtual machines or Linux Station. Three PCIe Gen.3 slots allows for 10GbE/40GbE NIC, SAS storage expansion card, and USB 3.1 10GbE adapter.

TVS-882BRT3

Also powered by 7th Generation Intel 14nm multi-core processors and features Thunderbolt 3 (40 Gbps) connectivity, including a unique Thunderbolt-to-Ethernet (T2E) 10 GbE converter, the TVS-882BRT3 is ideal for online video editing and high-speed file sharing. As with the TVS-882BR, the TVS-882BRT3 comes with an optical disc drive (ODD) slot, offering the same backup benefits, as well as media playback functionality via HDMI. The TVS-882BRT3 comes with three PCIe Gen.3 slots. Two slots are preinstalled with dual-port Thunderbolt 3 expansion card, while the third slot allows for adding 10GbE/40GbE NIC, SAS storage expansion card, or a USB 3.1 10GbE adapter.

TVS-1282T3

Exclusively providing a Thunderbolt/NAS/iSCSI SAN triple solution, the TVS-1282T3 features four Thunderbolt 3 ports to enable seamless collaboration between up to four Mac and Windows devices. Coupled with its higher bandwidth to smooth 4K video transfer and online editing, the TVS-1282T3 is a perfect match for Thunderbolt-equipped Mac and Windows users for 4K workflows, file storage and high-speed sharing. The TVS-1282T3 leverages 7th Generation Intel 14nm multi-core processors and was designed around the concept of tiered storage, application-based partitioning and network traffic distribution, providing exceptional performance to fulfill critical tasks.

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THE WORLD'S FIRST CLIENT SOLID STATE DRIVES WITH 64-LAYER 3D NAND TECHNOLOGY

Rather than just being some fancy words thrown around to make the new drives from Western Digital sound cutting edge, the 3D NAND technology contained within the new WD Blue 3D NAND SATA SSDs and SanDisk Ultra 3D SSDs will impact the speed, reliability and power consumption of your PC.

WD BLUE 3D NAND SATA SSDS

Targeted towards DIY enthusiasts, resellers and system builders, the WD Blue 3D NAND SATA SSDs range between 250Gb and 2Tb capacities in both a traditional 2.5-inch/7mm cased drive as well as a single-sided M.2 2280 form factor, and boast an industry-leading 1.75M hours MTTF (mean time to failure). The 3D technology also helps to reduce cell-to-cell interference, leading to increased reliability, in a drive that draws up to 25% less power than previous generations of the WD Blue SSD. Of course, the drives also feature lightning fast speed with read speeds up to 560MB/S and sequential write speeds up to 530MB/S.

SANDISK ULTRA 3D SSDS

Intended for gamers and other creative enthusiasts who want to improve the performance of their PC, the SanDisk Ultra 3D SSDs deliver enhanced endurance and reliability, no-wait boot-up, shorter application load times, and quicker data transfer. Like the WD Blue, the SanDisk Ultra 3D SSD drives draw less power than previous generations of drive for greater laptop battery life as well as greater reliability. With up to 560MB/s sequential read speeds (550MB/s for 250GB) for faster boot-up and better overall system performance, the SanDisk Ultra 3D SSDs ensure there is less of a wait before you can play. Using NCACHE™ 2.0 technology, the drives are further optimised by writing everything into the drive's high-speed buffer before transferring it to the flash array.

upgrade AUSTRALIA 6.0

BUILD THE BEAST!

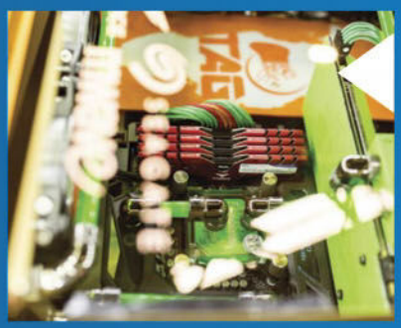
Once again we will be giving away the Beast PC to one lucky attendee of Upgrade Australia!

Our master builder Josh Collins will be putting this together live at Upgrade Australia 6.0. and will be providing updates through the evening as to how it is coming together.

This Beast is built around the new AMD Ryzen Threadripper CPU, perfect for power users and gamers alike, this is the fastest multithreaded processor made for a consumer PC.

All of our sponsors pitch in with top shelf product in order to build this one of a kind PC for the luckiest person in the room to win on the night.

Please note: you must be registered and at the event to win the Beast, it's simple to enter – 25 words or less about why you deserve to win the Beast.



CASE MOD GALLERY

The case modding scene is back baby and it's more exciting and more competitive than ever. We hosted a few of the best at Upgrade Australia 5.0 so to whet your appetite, why not check out the gallery on the PC PowerPlay or PC & Tech Authority website!

Case modding is the new overclocking. So say many in the biz, and many pro overclockers have re-tuned their talents to focus on the case modding arena. As seems to be the case in many competitive arenas, Australian case modders regularly punch above their weight competing at an international level and doing us proud.

Check out some of the best home grown builds at Upgrade Australia 6.0, and have a chat with the modders that built them!

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HYPERX CLOUD ALPHA

Double chambered goodness

HyperX's new Cloud Alpha gaming headphones have been in development for two years - which, we guess, means one year spent per chamber, as the Cloud Alpha's main feature is a dual-chamber design to deliver improved audio quality.

"The new HyperX Cloud Alpha is the first gaming headset to include our dual chamber technology to deliver unrivalled sound quality," said Tyler Needles, global audio business manager, HyperX, in a press release. "Designed and tested in the HyperX labs, Cloud Alpha delivers the best possible audio performance, comfort, and build quality for the ultimate competitive advantage and will be used by top eSports pros globally."

The headphones also boast 50mm drivers, and the two chambers separate bass notes from the middle and high ranges. Memory foam earcups make for comfortable, long, gaming sessions, and a wider headband also helps in the comfort department. There's a detachable cable with in-line controls, and the Mic is Teamspeak and Discord certified.

The Cloud Alpha will be available on September 25, and retail for $US99.99.

RIG 100 HS/HX

Plantronics announce chat specific headsets

Say you've got a great sound system attached to your TV, but you still want a good mic for chatting in-game, and one that isn't going to get in the way of your cinematic audio setup... Enter Plantronics new RIG headsets.

These are dedicated to chat, with only a mic and single ear-cup to listen to your team-mates. The cup features an open, skeletal design so ambient sounds - and that awesome sound system, can be easily heard.

The mic even rotates so that the headset can be worn over your left or right ear - neat!

"At Plantronics, we understand the importance of communication for gamers. The RIG 100 series offers the power of a full range driver, allowing ambient noise in and provides open acoustics for a bigger soundstage. This means you'll be able to enjoy the experience of your sound system without compromising on your voice chat, never miss a shot called by your teammates again," said Peter Petrides, Director of Gaming Products with Plantronics ANZ, in a press release.

The RIG 100 series will be available October this year, and will retail for $49.

ROG ARENA

Microsoft bets on Esports

The Microsoft Store Sydney is doubling down on some serious gaming, thanks to a partnership with Asus. From the 2nd of September until the 25th of November there'll be weekly League of Legends tournaments run in the store on Asus ROG laptops.

All you have to do to get into the action is to register online - you don't need to be a pro-level player, as the tourneys are open to all comers. You can sign up by yourself, or as a complete team with some mates.

It's not quite as cool as the LoL events happening at other stores around the world, where participating can earn you IP and XP on your personal account.

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ORCHESTRATE FLEETS.

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The Lost Generation

Some once-successful developers can't achieve sales success these days, no matter how hard they try...

If you release a game it will probably fail. Advertising doesn't matter, word of mouth doesn't matter, quality doesn't matter, innovation doesn't matter. Even reputation doesn't matter. Introversion sold millions of copies of Prison Architect. Their follow-up game, Scanner Sombre, was a disaster – they joked that it sold a mere five copies. Obviously, this was an exaggeration. SteamCharts.com clearly shows that as many as 157 people were playing it at launch. That number diminished steadily for the following month, and today at any given time you'll typically find as many as one person playing – maybe even two.

The Free-To-Play business model is not a silver bullet; this has been proven beyond all doubt by the ongoing failure of Battleborn. The launch of a 'Free Trial' version sparked a brief flurry of interest, and then player numbers once more plummeted into double digits. If you logged on to the PC version this August, depending on the time of day you might have found as few as 32 people in the entire world playing Randy Pitchford's Hobby-Grade Magnum Opus.

Mass Effect: Andromeda also launched a 'Free Trial' version, but any interest generated by this venture was negligible. There were a few small post-launch updates to fix some of the more glaring animation errors, but BioWare has now announced that all further development on the game has ceased. The Andromeda story will only continue in the form of novels and comic books. BioWare has been reduced to cranking out fan-fiction of their own creations.

JAMES COTTEE is still online if anyone wants to play Micro Machines with him.

Nostalgia alone has little selling power. SteamCharts.com shows that in August Micro Machines World Series never had more that 13 players online at once. For long stretches the number of players would dip down to just one. Who was that poor soul? A child, trying to enjoy a gift from his loving but clueless parents? Or an adult, trying to live in the '90s for just a little bit longer? Maybe he could get a game going by gifting a copy to a Scanner Sombre player; there are clearly a lot of lonely people in this world.

Does rock star swagger automatically translate into sales success? Nope. Log on to Cliffy B.'s LawBreakers during peak gaming hours in Australia and you'll find fewer than 500 players online. Enough to get into a match without an interminable wait, but possibly not enough whales to warrant the ongoing existence of 65-person development studio.

> "BioWare has been reduced to cranking out fan-fiction of their own creations"

Frankly, the data revealed by SteamCharts.com is so humiliating, and so entertaining, that I imagine that it's only a matter of time before some games industry peak body lobbies to have the site taken down. They might have a case. If someone can easily see just how few people are playing a failed online shooter, he will be far less likely to buy it.

How do you explain this status quo? How do you explain a world where once successful developers can suffer such humiliation? One factor is that sufficiently popular games simply refuse to die. After EA switched off the server for Battlefield 2142 the fans created their own. A Frankenstein game like Space Station 13 endures because it delivers an experience you can't get anywhere else. Games aren't produce; they don't rot. If the player base wants to keep something alive, they'll find a way. And if someone is still playing, say, Shogo: Mobile Armor Division, he'll be a tad less likely to pay full price for Agents of Mayhem.

In America there's a lot of discussion about the notion of a 'Universal Basic Income.' With so many jobs being claimed by economies of scale, globalism, and automation, it has been asserted that 'U.B.I.' could be a salve for the resulting social unrest. The name is new, but the concept isn't – the 'dole' has been tested quite thoroughly in the UK. It may stop people from starving to death, but its toll on the human spirit is ghastly.

Up until now it has been assumed that U.B.I. would only be relevant for unemployed factory workers and the like. But an increasingly merciless marketplace will put ever-greater numbers of village code-wrights and mod-smiths out of work.

Perhaps some manner of pan-national organisation could take in all those poor under-employed devs, and provide for them a sheltered workshop. A place where they could make fair-to-middling games year in, year out, with nary a care as whether anyone will ever buy, play, or enjoy them. Perhaps U.B.I. Software is the future... PC

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TRUE GAMING

THE THIRD EYE

The makers of Skullgirls are toiling away on a game that will change the way you think about the Metroidvanina genre. We talk to Lab Zero CEO **PETER BARTHOLOW** about the mind-expanding worlds of Indivisible...

WHO PETER BARTHOLOW
WHERE LAB ZERO GAMES
WHY INDIVISIBLE

Indivisible, the new Valkyrie Profile-inspired RPG from Lab Zero, is shaping up to be a ground-breaking work of art. Yet, as producer Peter Bartholow told us, it almost never got off the ground.

"In late 2015 we launched a crowdfunding campaign on Indiegogo, seeking $1.5M. If we hit that goal, 505 Games would provide the remaining $2M of the budget. Since we're still a relatively new studio, we released a playable prototype on PC and PlayStation 4 to drive interest in the game."

The campaign was rough, to say the least.

"What we didn't know when we set this plan into motion in early 2015 is that the summer would be a record-breaking crowdfunding season, thanks to Bloodstained and Shenmue 3. And after that, the media more or less collectively decided that the audience was tired of crowdfunding coverage. Furthermore, some outlets I spoke to said that the cloud over Mighty No. 9 in particular caused them to pull back on crowdfunding coverage because it might be seen as an implicit endorsement."

Peter believes that another factor was likely his choice of crowd-funding platform. "Indiegogo arguably helped our Skullgirls campaign, because it was relatively unknown at the time and it stuck out a bit in the sea of Kickstarters. However, in the three years since our Skullgirls campaign, it would seem that the Indiegogo brand lost what trust it had, and that gave a number of people pause when contributing.

"Fortunately, however, Indiegogo's policies are a bit more flexible than Kickstarter's, and that ultimately saved us. Indiegogo campaigns can run a maximum of 60 days, and it's possible to get an extension if you reach a certain percentage of your goal. Thanks in large part to our fans, the PS4 prototype release, and support from other indie developers letting us cross-over with their characters, we managed to get the extension. We ultimately not only funded the game, but also funded two stretch goals. And post-campaign 'slacker backers' have pushed us to a third stretch goal.

"As grateful as I am that we succeeded, if I'm being completely honest, that was an emotional rollercoaster that I hope Lab Zero never has to ride again."

To make this crowd-funding success all the more bitter-sweet, Peter isn't even sure if there are any specific lessons his team has learned – rather, they've been left with lingering questions. "For example, I genuinely wonder if releasing the playable prototype was a good move and a good use of development money.

> "the public doesn't understand how game development works because we've done a terrible job educating the consumer"

"Against all odds, we hacked together a pretty polished and fun prototype in about three months, and did our best to make it clear that it was a proof-of-concept and not a finished game." And yet, much of the feedback held this work-in-progress to the standards you'd expect from a finished product.

"Fundamentally, I think the general public doesn't understand how game development and iteration works because our industry has done a terrible job educating the consumer. As a result, I feel that releasing a playable prototype just presents them with too many questions about the game or too many opportunities to find fault with it.

"So, despite what everyone says they want, I think when it comes to crowdfunding, it's probably easier to sell a concept or a dream than something that they can actually play." While Peter didn't name names, the biggest crowd-funding success of all time certainly bears this out.

Indivisible will touch on corners of the world seldom explored in games – the core of the story is inspired by South East Asian cultures and religions. "Whereas many games have a Western point of view as they explore Eastern cultures, we wanted to turn that on its head.

"For example, Ajna comes from a tiny, remote village called Ashwat. Later in the game, she'll visit the Iron Kingdom, a steampunk take on Victorian London. So whereas a Western game character wandering into a small rural village might comment on how exotic and primitive it is, Ajna would have the opposite reaction."

There are also elements that will directly impact gameplay, such as Ajna's ability to meditate to enter the Inner Realm in her mind. "We did a lot of research for other regions and characters. Even though Indivisible is a fantasy game, we wanted to be respectful to the Earth cultures that inspired it. In some cases, this research also directly influenced the characters' gameplay."

Peter's team is well aware of the many Metroidvania success stories of recent years; he cited Ori and the Blind Forest, Guacamelee, and Axiom Verge as notable examples. "Indivisible's design director, Mike Zaimont, thinks Ori's use of enemies and enemy projectiles as a standard movement option was nothing short of brilliant, and that heavily influenced one of our design choices.

"Mike also loves that Guacamelee feels like a spry platformer, even in towns. And he

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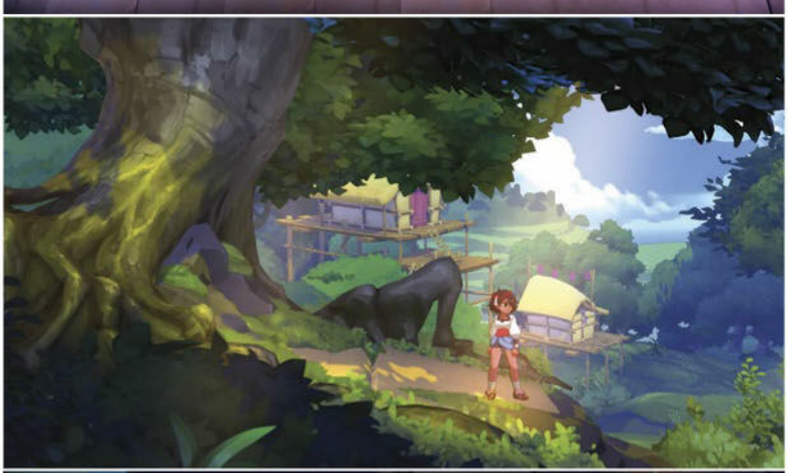

thinks it's especially clever that they use spikes to reset Juan to a certain point, which allowed the designers to craft platforming sequences that require completion in one shot without outright killing the character, since killing the character is a major event in a Metroidvania.

"Axiom Verge's tiered 'suit' upgrades and the associated ability, as well as one ability we won't spoil, stand out as hugely innovative as well. Mike tends to enjoy games like Axiom Verge where a deceptively simple ability turns out to have myriad uses as you come to understand it better, and we're definitely taking that route with Indivisible."

The team at Lab Zero has been working with an evolved version of their own proprietary engine, referred to internally as the 'Z Engine.' "We've kept the same amazing lighting for the sprites that we had in Skullgirls, but extended it to the environment as well. We've also added real shadows cast not only by the environment but also by the sprites, which serves to ground everything and give the game a much more cohesive look.

"For tools, we've built an entire suite of level building tools directly into the engine. This allows us to test things as soon as they've been built, which greatly speeds up testing and iteration time. Since we're a small team, this feature is incredibly important."

Through the course of Indivisible's development, the game design has already evolved considerably – most notably with regards to the controls. "Initially, Ajna had to specifically equip each weapon in order to use it and its abilities. This sounds great on paper, but once we tried it in real setups that required the player to use abilities from multiple weapons, this became really confusing and cumbersome. The new control scheme doesn't require any weapon switching, and still gets all of the abilities into a pretty easy-to-use control scheme.

"We still have more than a year left until launch, so we're still iterating on a lot of things. The Backer Preview build we'll be releasing soon will not only let us get feedback on the game as it currently stands, but also serve as a lasting testbed for future changes."

For the music, Lab Zero has commissioned legendary composer Hiroki Kikuta, most famous for his work on Secret of Mana. "Kikuta is great with melody and instrumentation, and I think he's really captured the feel of each of the game's areas. We specifically asked for music that had the melodic, game-y feel of Secret of Mana, but with a more modern-sounding lushness."

Right now they're mostly working on music for exploration and gameplay, which will reflect the mood of each new area Ajna discovers. "For example, Kaanul is an Aztec-inspired subterranean city, but it's a bit sombre because the people are hiding underground from a mysterious threat. But the focus is more on strong melodies and capturing the flavour of the environment.

"We'll be moving onto more cinematic and emotional music later, but you can hear some echoes of Ajna's personal struggles in her theme, which we've released online. And when I met with Kikuta last year, we ran through the story with him, and he promised that he'd make people cry... So look forward to that, I guess?"

With lavish animation from Mariel Cartwright, and an intro sequence from Studio Trigger, Indivisible is due to launch in 2018. For more details, visit IndivisibleGame.com. *JAMES COTTEE* PC

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Sustain-able Systems

What do camping holidays, Sim lifespans and asteroid colonies have in common?

Recently, we put tents in the trailer and drove to Airlie Beach, and back, over four weeks. I haven't played games for this long since 2005, when I was traveling around the world. In my normal life, I sometimes go a day or two without games. Maybe. What did I learn from my PC-free month? Firstly, it's hard to see platypuses in the wild, but possible. Secondly, that driving past lots of houses gives me an irrepressible urge to play The Sims.

Every time I decide to play The Sims, there is a new expansion pack. It's tradition. And convenient. But, did you know, for players like me who are chronic restarters and micromanagers, you can turn a Sim's lifespan to "long"? I should have done this years ago. It's relaxing, like being on holiday. You can actually realise your most outlandish goals quite comfortably, like fishing-to-fertilise-plants-to-cook-meals.

As such, the new Parenthood expansion is great, but it's impossible to be a perfectionist-player and single parent, if toddlers age up at their usual rate. (I usually get adult Sims knocked up by passing townies to avoid taking time out of their overwhelming schedules to form relationships.) You even have influence over children's core values which become extra traits at the adult age transition, good and bad. There is much more detail here, so more time to explore it makes sense. Like letting the kids spend an extra day at the Bundaberg Ginger Beer museum.

What I most learned from holidays and Simming, however, is that I really like game systems which rely on small inputs and outputs, while evolving and improving from within. Like playing Sims who source all their own food and make their children neuroticly perfect. And, like our camper trailer, where you have to buy food from a supermarket, but have everything else you need to set yourself up for the night and cook a meal. It's a cheap and efficient way to travel that you get more and more comfortable in, over time, playing games, sleeping well etc.

This is why Oxygen Not Included also had me hooked this week, in my post-holiday state. You should play it, for the gamer's version of hardcore camping, without actually having to get entangled in a sleeping bag. In fact, you start with three replicants and only a near-empty ration box. Then, you have to scout the nearby area and assess how you can use resources to develop a colony.

> "tempting to give everyone their own bedroom, not just the replicants who snore"

The initial oxygen boon is one of the game's few freebies, like free washing powder at a caravan park. You'll soon need to create machines or use an algae terrarium to convert carbon dioxide, which tends to collect at the bottom of the colony. Every new object, from outhouse to power plant, needs to be researched by replicants, who improve by doing all tasks. My favourite moments occur when you start having the person-power to make art, showers and accoutrements which go beyond mere survival, to prove that this closed system can grow.

Another compelling idea is to stop poking your system, to see if it really is working indefinitely. Where is the perfect balance found? It can be tempting to give everyone their own bedroom, not just the replicants who snore, and decorate them with beautiful sculptures, but then you need more resources to make and maintain the space. Is it cool that you have enough Mush Bars to eat, if they cause diarrhea? How fancy, and complicated, do you want food production to be? I've been able to find "stable" points, but not at the more elaborate end of colony building.

ONI is still in early access and, as such, I'd usually avoid it. But there's something exciting about jumping into games with a glut of statistics early, before there are so many of them you have to disregard most in order to even start. The game is very similar to RimWorld in many aspects of management, the one difference being that you're firmly enclosed and outside help, or destruction, isn't coming. (At least yet.) Having said this, there are creatures to fight or domesticate, and new resources to find in further flung regions.

So, I would like to thank Oxygen Not Included for easing me back into post-holiday life and reviewing games. I did actually enjoy the sense of timelessness, without responsibilities and outside pressure, like the long lifespan option in The Sims, even without my PC. Camping and ONI are a bit similar, too, whether it's realising that how you deal with waste is an important environmental consideration or taking earplugs to offset the snoring in your tent. Systems which approach self-sustainability are something that intrigue me, both in life and in games. PC

MEGHANN O'NEILL did spend some time watching her kids play Terraria in the tent, for that elusive gaming fix.

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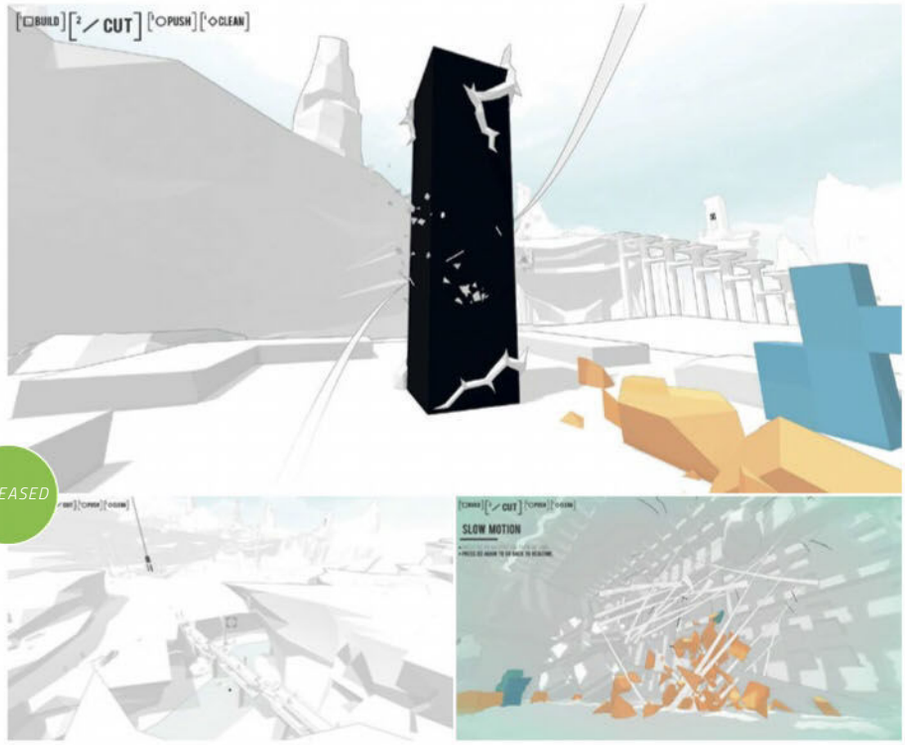
A Collection Aside

Recently returned from a month-long driving holiday, **MEGHANN O'NEILL** has been hankering to visit other worlds, once again. Not that there's anything wrong with ours, more that aliens and ghosts are a relaxing change of pace after talking with everyone from Grey Nomads on hardcore cycling trips to outback lantana poisoners. These games combine themes of journeying and discovery. Just make sure to take a moustache if you travel to the Darkside, or you might confuse people.

BOKIDA: HEARTFELT REUNION

DEVELOPER RICE COOKER REPUBLIC
PRICE $20
bokida.com

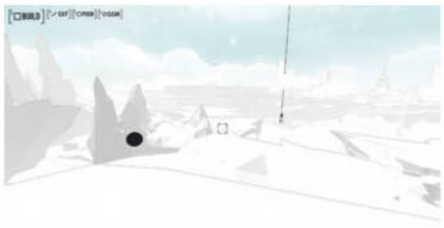


RELEASED

How many crevices have I found myself stuck inside of, while exploring the amazing world of Bokida: Heartfelt Reunion? A great many. In case I've previously failed to mention, I have the bad habit of pointing myself in a direction and then walking in it, in open world games. I should write a book on the many ends of worlds I have seen. Often, I'm left frustrated because it's then so easy to lose the critical path, like in Skyrim. Fus Ro Dah? I saw a lot of snow. In Bokida's case, the breathtaking level design enchanted me for hours, progression aside.

As a kind of Journey-meets-Minecraft experience, the player mars a perfect landscape with custom blue or green staircases, and blocks to pull against, for speeding up travel or flying. At one point, I noticed a collectible dot perched on a rocky spire, from game-miles away, and had to create magnificent, ugly scaffolding to reach the top. Then I found a gorgeous, ancient castle to scale that was many times the height again. I have now climbed many things, collected sad increments of story and gazed down at incredible, alien landscapes.

I eventually gave up playing, although I was vaguely close to the end, because I completely forgot what I was supposed to be doing, as is my wont. This is not to say I didn't solve many enjoyable puzzles on my wayward journey, however. Generally at monolith-like structures, you will build, cut, push and clean, having to discern the structure of the puzzle, and your goal, through experimentation. Some are difficult. When they're solved, the plot progresses and you're even sometimes treated to new places to explore. (Like I needed more places.)



Smaller sections of story are delivered when you find symbols on stones. It's often minimalist philosophy, like, "Have little and gain. Have much and be confused," which probably wasn't referring to the massive level I got lost in, but I had a laugh at that point anyway. I understood the narrative, if not all of what was implied, because aspects feel deliberately private. You are treated to information about local temples, festivals and traditions, but the most pivotal storytelling is evolving and environmental, as you'll learn through exploration.

> "I have now climbed many things, and gazed down at incredible alien landscapes"

Over the course of the game, you'll glide, swim and float, and movement just feels really nice. I found myself, uncharacteristically, wishing this were a VR title, except that the moments of sudden acceleration would be vomit-inducing. At one point I found myself falling infinitely through the most beautiful village, built into floating rocks, reluctant to try to break my fall. As the game progresses, there are some unusual moments for gravity, which are particularly great when combined with Escher-style structures.

I'd recommend Bokida: Heartfelt Reunion to level designers, and people who promise to play it properly, unlike me. Interestingly, I found a Let's Play showing a YouTuber getting horribly lost at exactly the same location that I started walking in a straight line. He described the experience as having, "an overwhelming amount of freedom." I spoiled the ending for myself, but I wish I'd stopped wandering and finished it. In such a detailed puzzle-exploration game, it's easy to eschew the puzzles, but progression is, ultimately, better.

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SETHIAN

DEVELOPER DUANG! GAMES
PRICE $7
sethiangame.com

RELEASED

I'm not sure when I first realised that I am one of, "the generation grammar forgotted," as described in an article of the same name by ABC writer, Gemma Sapwell. (I also have no idea if I put commas and quotation marks in the right places in that last sentence.) It may have been when one of my young-ish children told me they needed to practice their "phonemes" and I was like, "What the hell are you talking about?" "Muu-um, you don't know what a phoneme is?" "Well it's, um, no, is it sound-something?" You get the (horrendously embarrassing) picture.

And thus, I found myself stuck on the very first puzzle in Sethian, paralysed by words like, "object, verb and subject," as well as my belief that, "I can't do grammar," when all I had to do was copy symbols written in the journal. Terrifyingly, you're a linguist on an abandoned planet with a computer and a strange language to decrypt, concerned with your reputation and unfavourably comparing yourself to the great studiers of the Sethians. Your task is complicated by the computer's input symbols being in a local, mostly unknown, dialect.

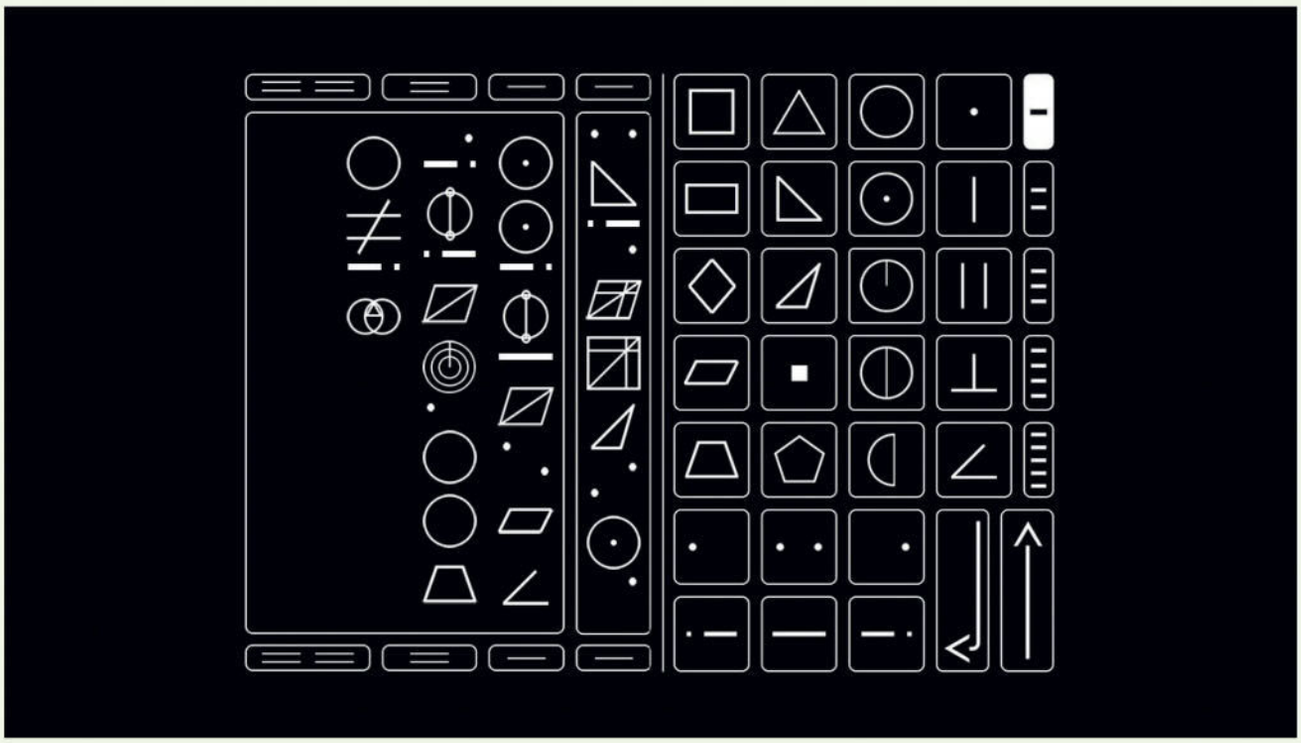
I did finish the game. Can I do grammar now? Nope. The only Let's Play I could find, for the many hints I needed, was conducted as a conversation between two actual linguists thoroughly critiquing the way the designer constructed this alien language. After playing, I listened to the entire thing while doing housework, understanding maybe 20% of their fascinating banter. The YouTuber's account name is "minimuminim" and combining this with your play experience seems essential, as the two experts highlight so many aspects that went over my head.

Incidentally, the places I got stuck were less grammatically challenging and more related to my not understanding that the computer was capable of asking me questions and that I had to sometimes respond to its last dialogue. With a few (very meaningful) exceptions, this is not so much a puzzle game as a story. Largely, you're following explicit instructions, as written in the journal, to progress on one very linear path. It feels like it wanted to be Her Story, but chickened out of allowing you to branch out creatively. Well, until it no longer feels that way.

Expect a philosophical, and sometimes confusing, discussion on themes like freedom, transcendence and suffering. I'm fascinated by how an alien race might view these things, but I'm not sure the narrative went significantly beyond a human interpretation. My favourite moments were where I thought I might make some terrible mistake, like when the journal read:

"Bhatguhar insists Xi![pentagon] and Xi[upside down exclamation mark, diamond window, !, pentagon] are not interchangeable in Sethanese but he never elaborated."

So, if you're Australian and aged 30-50, Sethian may bring up that very sensitive point that you have no idea what grammar is, nor how to do it. Thanks, '80s and '90s school system. This is also a game that, apparently, constructs an alien language with some significant flaws, all of which went over my head. It's a story, tied to progression that initially appears shallow, but which may reveal itself as more, if you're clever enough to "play well". I loved it, mostly because it made me feel exceptionally stupid and, occasionally, very smart.



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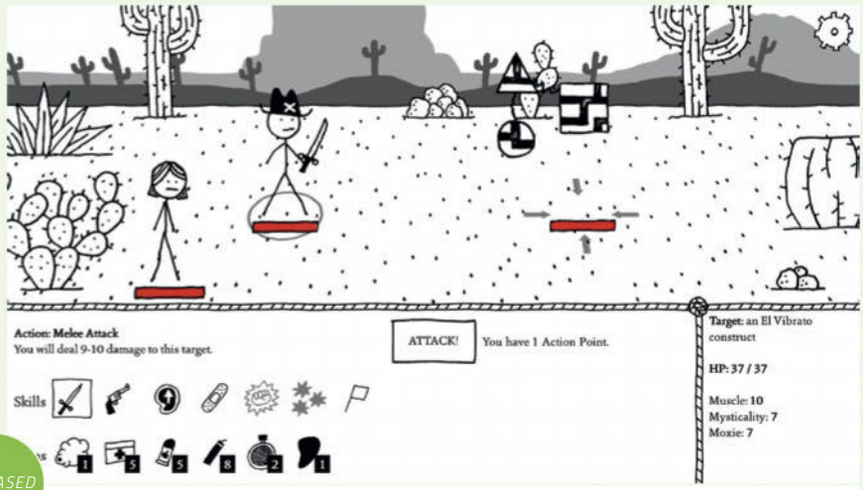
WEST OF LOATHING

DEVELOPER ASYMMETRIC
PRICE US$11
westofloathing.com

RELEASED



I mean it. I really appreciate you telling me where that store is.
His eyes narrow.
Really. It's no trouble at all. Don't mention it. I mean it.
I've run out of ways to thank you, but I really do want you to know that I'm very grateful for your help.
His face starts to turn red.
Do. Not. Mention. It.
He looks about ready to punch you if you don't knock it off.
[1] Okay, okay. Don't mention it.

Do you have that one, amazing friend who effortlessly puts you at ease and knows how to make you laugh? I do. It's like she arranges her loungeroom so that guests are naturally filtered towards the comfiest seats, while she delivers hilarious anecdotes en route. West of Loathing employs a similar, welcoming feng shui, right from the menu screen. I knew to casually shoot the bottles lined up for me, before "new game." I then shot carnival ducks for a while, before shooting my class, from cow puncher, bean slinger and snake oiler. (Fighter, mage, thief.)

I immediately grokked what this experience would be, despite apparently being the only person in the world who never played Asymmetric's similar MMORPG, Kingdom of Loathing. And, as expected, I loved every moment of silly dialogue, animation and managing stats. Gameplay prioritises challenge, without creating stress, and encourages non-linear problem solving, based on divergent choices for character build. It's basically a Western-themed version of Quest for Glory. (That looks like Diary of a Wimpy Kid.) And, it's entirely single-player, but very replayable.

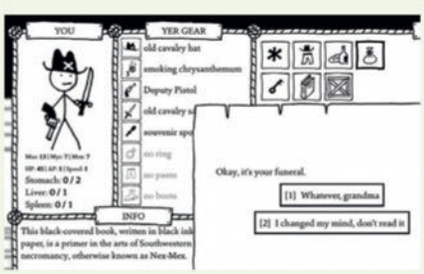
Even at your first location; the family home you are leaving, you'll learn that every action is meaningful. By combing your bald head, you gain experience. By accidentally walking too close to a cactus, your character will cry out in pain and then, after many such clumsy moments, get the Mostly Scabs perk which grants +5 maximum hit points. Content is locked out from your first conversation and I thoroughly regretted not taking Safecrackin', even if Foragin' allowed me to harvest many useful alcoholic drinks from the desert foliage.

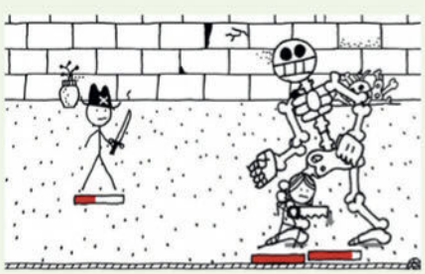
Indeed, the tutorial town then locks out potential "pardners." The town doctor/drunk, who I chose, is so useful I couldn't help but wonder what amazing feats might be performed by those I left behind. Killing skeletons and visiting graveyards allowed my pardner to take down even the toughest skeleton boss with one hit, simply because she's interested in human anatomy. Cows, however, we had to avoid. But with the first narrative gate, structurally, being to raise 5000 meat to blow up a mountain range, the ways you can choose to approach this are varied.

In fact, it would be impossible to detail all strategies, so here are mine. Knowing what my overall goals for progression were, mostly involving gradually moving a train and investigating both spooky and alien mysteries, I explored map locations to see what could be engaged with each day. If, for example, my Moxie were only slightly too low for some task, I could consume an inventory item to raise it temporarily.

Brilliantly, if you lose fights, you get angry (and associated buffs) twice, but the third time will progress the action to the next day and reset all of your buffs.

West of Loathing is like an old friend, even for someone who never played Kingdom. Occasional imperfect aspects, like how early combat can get into tedious loops before your abilities are more varied, are offset by how welcome the game makes you feel. My favourite moments included arguing with the narrator over whether I really wanted to search a spittoon for treasure and discovering that my weird, accidental behaviour had unlocked ridiculous perks. Content is organised in a way that makes this a highly replayable and warm experience.





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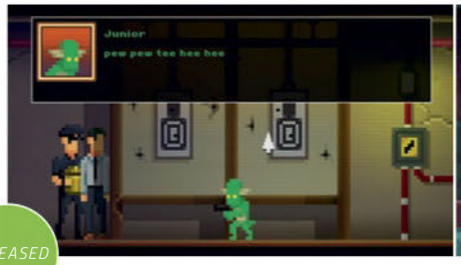
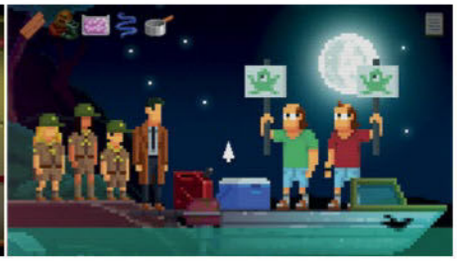
THE DARKSIDE DETECTIVE

DEVELOPER SPOOKY DOORWAY
PRICE $12
darksidedetective.com





RELEASED

As if the promise of paranormal/police, adventure game vignettes wasn't exciting enough, The Darkside Detective has music by Ben Prunty, the composer for FTL. In fact, he recently Skyped into my Interactive Media class to tell us about the music he was making for Darkside Detective's museum. (And now you are aware I have friendly and professional dealings with one of the developers.) And yes, the spooky music was engaging, but not distracting, supporting the extraordinary aesthetic presentation. This was invariably lovely to look at, listen to and read.

You begin with six police files, two of which are selectable. Each are small adventure games which McQueen and his goofy partner, Dooley, must complete so you can progress. As Darkside Detectives, they deal with ghosts and the occult. Cases start simply, with a girl being abducted in strange circumstances. Later, one takes you into the Darkside, where you'll meet all sorts of confusing versions of familiar people. Hilariously, one adventure is even set inside the police precinct and you start to understand the politics of the detectives' position.

This is not to suggest the storytelling is, in any way, serious. In fact, it's unrelentingly ridiculous. The library in particular is full of books like, "Turning Duct Tape into Pants. Making your nethers sustainable," and "Guylight. The heartbreaking tale of a girl who falls in love with a reverse vampire," followed by more jokes about duct tape and reverse vampires. The perpetrators of crime will tell you they're guilty before you've even asked their name. The victims will ignore you entirely and somehow even Dooley will fail to acknowledge your clever problem solving.

That this is broken strictly into six, small slices makes puzzling really transparent. It's easy to understand what needs to be done and you can set about doing it in a way that never feels overwhelming or silly. Getting stuck is like, "I need to complete this goal. I know of eight rooms, have five objects and two people to speak to, this is achievable," rather than, "I have no idea how to start solving this or what to do next." I was unable to progress for probably about five minutes over the entire game and the forward momentum was refreshing.

> "I finished up feeling like I'd played a redux of every adventure game in existence"

Does the "small" aspect to puzzling and presentation mean the designers are learning how to make adventures? No. In fact, there are so many tropes and genre-referencing moments that I somehow finished up feeling like I'd played a redux of every adventure game in existence. Meeting the ghost of Enid Blyton even reminded me of the "strict British boarding school" adventure games I used to plan on paper, when I was a child. That's not embarrassing, is it? This is something we all did, right?

Overall, I was left with the impression of The Darkside Detective being meticulously planned and crafted. You may only have a limited window into a detailed world, but the story is engaging and coherent. It's not strenuous and is fun to play alone or with the family. I'd recommend this for fans of the genre, as well as newcomers, because I'd personally like to play more adventures where frustration isn't the only way to feel clever. Much like the "coffee break" games I've reviewed this year, see this as six, bite-sized treats to enjoy in spare moments. PC

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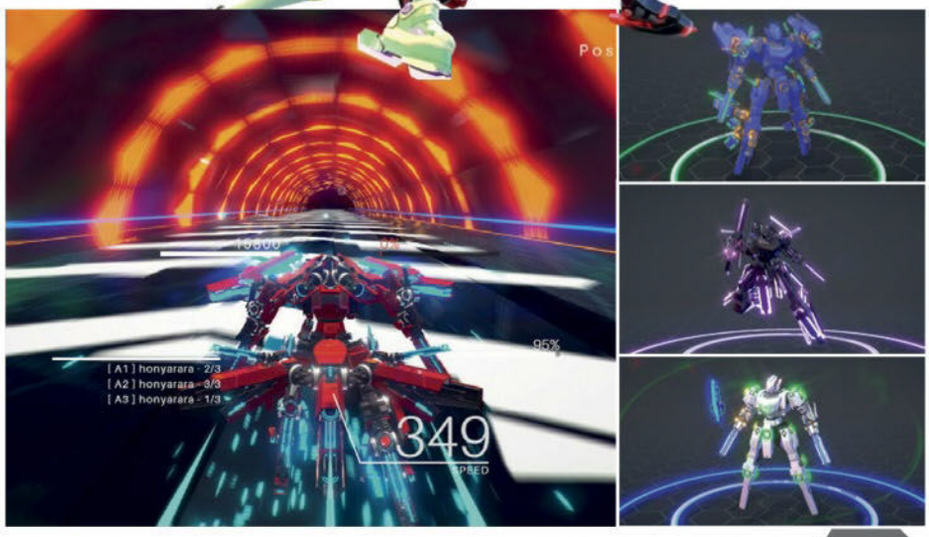
10 to Watch

Dungeons 3

DEVELOPER REALMFORGE STUDIOS
PUBLISHER KALYPSO MEDIA DIGITAL
DUE 2017
www.kalypsomedia.com

1

▼ Despite what the name would have you think, Dungeons 3 isn't all about dungeons *(It's about three dungeons? - Ed.)*. The evil Dungeon Lord has enticed the sultry dark elven princess, Thalya, into his employ, and with her help he'll not only build the most secure an intimidating underground lair and monster factory ever, he'll also take on those do-gooders on the surface by raiding their towns, killing their heroes and capturing their cities.



2

Break Arts II

DEVELOPER MERCURYSTUDIO
PUBLISHER AGM PLAYISM
DUE 2017
n/a

▲ If anime has taught us anything, and we like to think it has, then one of the truths of the world is that nothing moves faster than a giant robot. Break Arts II is a robot combat racing game that sees players take control of a customisable giant robot capable of speeding around neon future tracks and shooting the crap out of other competitors. It's a PC remake of a mobile game so we don't expect too much nuance, but damn if it doesn't look good.

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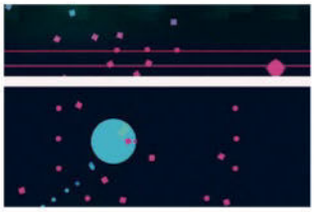
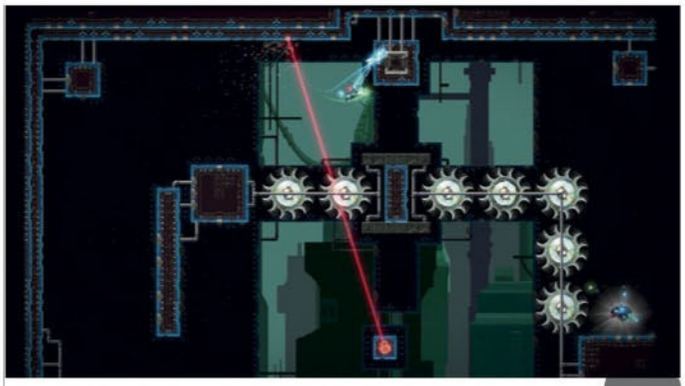
3

Just Shapes & Beats

DEVELOPER BERZERK STUDIOS
PUBLISHER BERZERK STUDIOS
DUE 2017
www.justshapesandbeats.com

▲ Developed by three members of the insanely prolific Canadian indie tear, Berzerk Studios, Just Shapes & Beats is a pared down teaming of bullet hell and rhythm game, using nothing but the ingredients listed on the tin. Up to three other players can join you on the couch to help little coloured squares dodge the other shapes as well as sound bullets and dubstep lines.



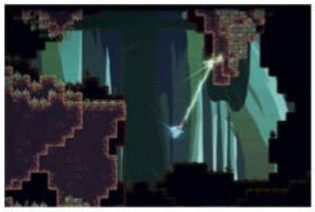


4

Remnants of Naezith

DEVELOPER TOLGA AY
PUBLISHER TOLGA AY
DUE 2018
store.steampowered.com

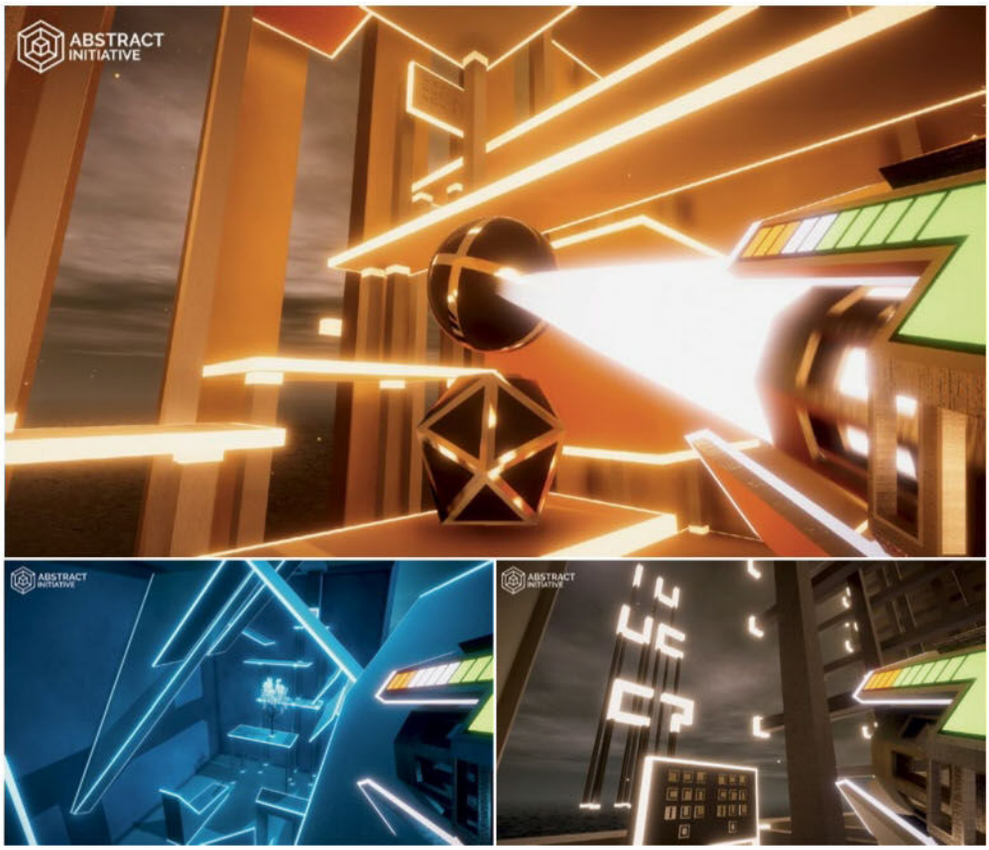
▲ Imagine a cross between Super Meat Boy and Spelunky and you have some indication of what Remnants of Naezith is like. Playing a Kayra, host to the soul of the ancient dragon, Naezith, you must make your way through trap filled labyrinths to find and destroy the Remnants – parts of Naezith's body – before someone can use them for evil.



5

Abstract Initiative

DEVELOPER CONCEPT EQUALS
PUBLISHER CONCEPT EQUALS
DUE FEB 10, 2018
conceptequals.com



◀ A physics based puzzle platformer with an emphasis on movement based puzzles, Abstract Initiative does emit a faint whiff of Portal, but that's not at all a bad thing. Players (or test subjects) are equipped with an experimental EMG (Electro-Magnetic Grapple?) tool capable of pushing, pulling and holding the objects needed to solve puzzles. Each of the 45 "experiments" can be solved in multiple ways using SCIENCE. And a gun. A SCIENCE GUN!

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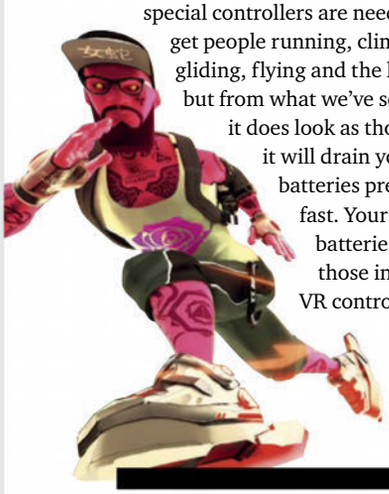
Sprint Vector

6

DEVELOPER SURVIOS
PUBLISHER SURVIOS
DUE 2017
survios.com/sprintvector



▲ Winner of multiple VR game of the show awards at GDC and E3, Sprint Vector is a single or multiplayer VR racing game in which the player has to use their full body to achieve full speed. It doesn't appear as though any special controllers are needed to get people running, climbing, gliding, flying and the like, but from what we've seen, it does look as though it will drain your batteries pretty fast. Your meat batteries, not those in your VR controllers.

Rifter

7

DEVELOPER IMAKEGAMES
PUBLISHER IMAKEGAMES
DUE LATE TBA
rifter.imake-games.com

▲ Let a fantastic '80s synthwave soundtrack fill your ears as you swing, run and dash through a neon landscape, taking down enemies with your neon sword and gun and fighting giant, screen filling, neon bosses. The developers describe Rifter as being the love child of Dust Force, Bionic Commando (hopefully they mean the fantastic Bionic Commando: Rearmed, not the horrible 3D reboot with Nathan R.A.D. Spencer), and Hotline Miami. (Neon) Sign us up.

Maneater

8

DEVELOPER BLINDSIDE INTERACTIVE
PUBLISHER BLINDSIDE INTERACTIVE
DUE SOON
maneatergame.com

▲ A revenge based action RPG set around the Gulf Coast sees players trying to survive in a vicious and unforgiving world while trying to find the men that killed your mother and cast you aside to die. Sounds pretty grim, huh? Did we mention that you're actually a shark hunting the fishermen that killed your mum, Jaws: The Revenge style? Explore an open world and an open menu in which you can go anywhere watery and try and eat anything dumb enough to not be on dry land.

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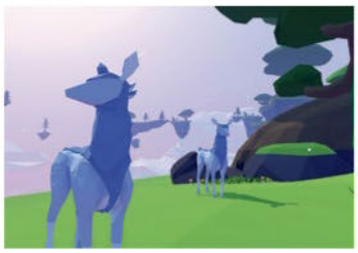
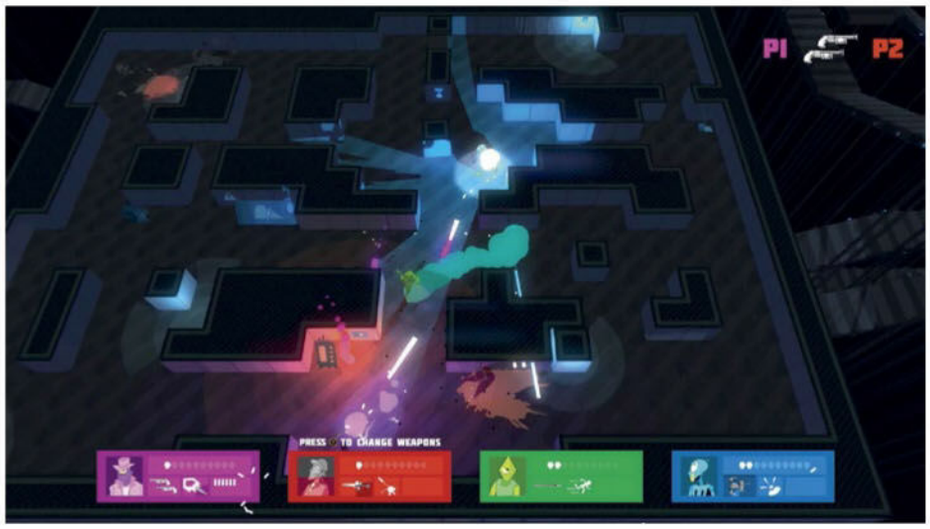


Aer – Memories of Old

DEVELOPER FORGOTTEN KEY
PUBLISHER DAEDALIC ENTERTAINMENT
DUE 2017
forgottenkey.se

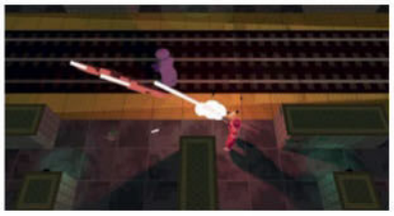
9

▼ Aer looks a little like the wonderful Rime, and that's a good thing. In this exploration puzzle game, the gods are old and forgotten and the world has shattered into a series of floating islands. The colourful landscape and endless skies are under threat from an encroaching darkness, and the only hope comes in the form of one of the few remaining shapeshifters, capable of transforming into a bird and taking to the skies at any time.



At Sundown

DEVELOPER MILD BEAST GAMES
PUBLISHER VERSUS EVIL
DUE SOON
www.sundown-game.com



▲ A light based stealth shooter that encourages strategic play with a hint of dickery. Unlike most competitive shooters, the maps in At Sundown are shrouded in darkness with only a few pools of light. Players are only visible while standing in these pools of light, or when they shoot their unique weapon, dash or slash. Dash to a good vantage point risking being seen on the way, or take it slow, hoping that someone doesn't get position on you?

10

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ASSASSIN'S CREED ORIGINS

DEVELOPER UBISOFT MONTREAL
PUBLISHER UBISOFT
DUE OCTOBER 27
assassinscreed.ubisoft.com

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REDISCOVERING A **LOST TREASURE**

After a year buried underground Assassin's Creed is coming back to life, writes **Andrew Whitehead**

Few franchises are as free to experiment with tone and setting as Assassin's Creed. While the heart of the series has remained relatively the same, it's a testament to the original concept that it can transition smoothly between the seriousness of the Third Crusade in the Holy Land in one game, and later shift to the Golden Age of Piracy in the Caribbean in another. It's surprising then that a franchise so full of potential ever got stale, but after the lukewarm response to Assassin's Creed Unity, and the low sales of Syndicate, Ubisoft did the right thing by the series and let it take a much-needed breather.

Now primed and ready to return to the spotlight, Assassin's Creed Origins is taking players to Ancient Egypt to tell the story of Bayek, a man who will eventually become the founder of the Assassin's Brotherhood. When we meet Bayek he's a man in his mid-30s (so middle aged back then) and a medjay, which is an order of desert scouts who watch over settlements of interest to the pharaoh. But with the arrival of the Roman Empire in Egypt their time is coming to an end. Now the last remaining member of this highly respected order, Bayek lives in the small town of Siwa with his wife Aya. Here he maintains order and he ponders what is left for him to do with his life.

Development of Origins began shortly after production wrapped up on Assassin's Creed IV: Black Flag, which is arguably (and I will argue for this game) the high point of the series, or at the very least the last great entry. Ashraf Ismail and Jean Guesdon, directors of Black Flag, are back at the helm for Origins and have big plans to give the series the kick up the arse it sorely needs.

"For Assassin's Creed Origins, this extra year of development allowed us to let the franchise breath and take the time to rethink and rework the core pillars of Assassin's Creed," says Guesdon, director of Assassin's Creed Origins. "Of course, the core elements of what is an Assassin's Creed game are still here – the lore, the stealth, the parkour, the open world – but they've all have been deeply modified and reinterpreted to modernise the Assassin's Creed experience."

THE WORLD AROUND US

It's easy to think of Egypt as a country of deserts, a few pyramids, and that one really big river, but it's a far more varied landscape than that. The recreation of Ancient Egypt in Origins is the biggest world ever featured in the series, and in amongst those familiar Egyptian elements are lush green oases, intimidating mountains, and big cities like Alexandria and Memphis.

"In terms of what makes our version of Egypt so interesting to explore," says Guesdon, "it comes down to that diversity and the seamlessness of the experience, but also to the time period we chose, Cleopatra's ascension to the throne of Egypt. At that time, Egypt is already 3,000 years old. In fact, there is more time between the construction of the great pyramids and Cleopatra's reign than between Cleopatra and our time! So the world we recreated is already rich of those 3,000 years of history, of forgotten temples, of old ruins and mysteries for players to discover."

Building off the real world history of Ancient Egypt, Origins uses this period of great change as a backdrop for the birth to the Assassins. It's a pivotal time in the history of the world as the powerful Roman Empire continues its aggressive expansion. Entire civilisations are being torn down and rebuilt all at once.

"After centuries of grandeur and accomplishments, Ancient Egypt is now at the beginning of its demise," says Guesdon. "Soon the line of Pharaohs will end, the Gods will die and the way of life will forever change. A new world order is coming."

WHEN THE LAW CAME TO TOWN

I went into my play session with Origins fairly blind about what I was going to see. It all began with Bayek riding into town on horseback, like a sheriff in an old western movie, strolling through the streets Siwa. The townspeople moved out of his way and spoke in hushed tones while the dust swirled in the wind and market vendors carried on about their day.

I couldn't shake that initial feeling of Origins being a western of sorts, particularly the classic stories like the movie Shane or Red Dead Redemption. Those classic stories of lone heroes who know their place in this new world is uncertain. Alongside Bayek is

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Senu, his eagle companion. The two have a close and symbiotic relationship, with Senu able to use Eagle Vision to scout out locations from high above, highlighting enemies and other points of interest for Bayek.

Senu doesn't do away with those tower climbing sections of the game though, and you'll still need to reach high points on the map to reveal more of the terrain and extend Senu's scouting capabilities. And believe me, you're going to need that bird's big eyes. There's no mini-map in Origins to help you out. Instead, you'll be using a compass at the top of the screen with little markers to let you know which direction to head in.

"The removal of the mini-map is the most visible change," says Guesdon, "that comes from our will to push exploration and discovery further than what has been done in previous Assassin's Creed games. With the removal of the mini-map, players can focus more of their attention on the world itself, so it's the world that drives their experience rather than icons on the bottom right of their screen. We now have a compass that still provides a sense of where to find Points of Interests, but it works more as an invitation to discover what awaits you by yourself than as a help to reach a place where you already know what you'll find."

As I wandered through the town I came across a priest beating a young man, shaming him publicly and claiming he was a thief. I enquired what was going on and offered to clear the boy's name after hearing his story and his claims of innocence. From there I was tasked with heading out onto the river Nile and retrieving the stolen goods from whom the boy claimed were the real culprits. Jumping into a nearby boat, I headed out towards my target. To help assess the situation I sent Senu skyward and surveyed the ships, searching the larger ones for my target and anyone that might stand in my way. Once I found where I needed to be I dove into the water and swam towards the ship's stern.

I figured the best way to take out my target was a sneak attack, though in my haste I was briefly spotted by an enemy. I dived beneath the surface, swimming underneath the ship's hull when suddenly my threat indicator glowed as a large figure moved through the water towards me. It was a huge, pissed off hippopotamus. In Origins you're not entirely helpless underwater, so you can swing your blade around to defend yourself, but we've all heard stories about how deadly hippos are, so I frantically swam to get out of its way.

I clambered up the side of the nearest ship and onto the deck. I did my best to sneak around and stay out of sight, but I made a few rookie mistakes and was spotted pretty quickly. It was then I learned how different combat is in Origins. My enemy and I drew our swords, but my instincts betrayed me and I pressed the wrong attack button. If I looked at the printed control scheme I would have realised this quicker. Origins uses the two right shoulder buttons for combat, one for heavy attacks and one for light. It took some getting used to, but combat began to feel much more alive and brutal than in previous games. We just went at it like real fighters would, trading blows in real-time. It felt like a big change from the almost turn-based style of combat from older Assassin's Creed games.

Though timing still matters when attacking, Origins feels more like a brawler. Distance and positioning matter a lot more, and no longer can players hope to lock-on to enemies when initiating a parry then triggering a counter-attack. You have to be much more purposeful with your attacks. The addition of a second attack button lets players string together more nuanced combos, especially when you take into consideration how different weapons can be used. For example, my trusty short sword was fast and deadly, but I did eventually find a lance-type weapon that allowed me to attack more enemies at once by swinging it around wildly. I even rammed it into one soldier's stomach, then pulled it out the other side through his body. It's a more fluid and aggressive way of fighting, and of all the changes I noticed while playing Origins, this is the one that stuck in my mind the most.

"We've really rebuilt combat from the ground up and are now using a system based on hitbox," said Guesdon. "In previous Assassin's Creed games it was based on what we called paired animation. That means that when you pressed attack the hero and enemy came together no matter the distance and then a dedicated animation was playing. With the hitbox system, your positioning, as well as the size and the speed of your weapon, decide if and how you hit your enemies."

> "with the removal of the mini-map, players can focus more of their attention on the world itself"

I fought my way across the ship but discovered what I was looking for wasn't here, so I was off to the next objective marker. As I continued to play I kept finding little changes that are barely noticeable but also make a lot of sense. For one thing Bayek now automatically climbs over objects and perform parkour-like manoeuvres without the need to hold a climb button. It's definitely one of those you have to try to appreciate, but Bayek feels like he moves more fluidly and less likely to get stuck on a knee-high wall. It's a small change that's indicative of a lot of things in Origins - familiar but different.

ENVIRONMENTAL HAZARDS

Ancient Egypt is not a friendly place. Deadly hippos lurk in the rivers, ready to snap your spine in two, while on land leopards will leap out and ruin your best-laid plans. There are also sandstorms to deal with, which can also prevent your eagle buddy Senu from being able to scout ahead. But there are upgrades that allow Bayek to tame animals, so those deadly hyenas could also prove to be valuable allies.

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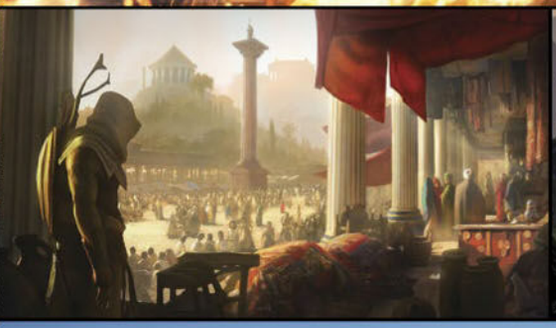
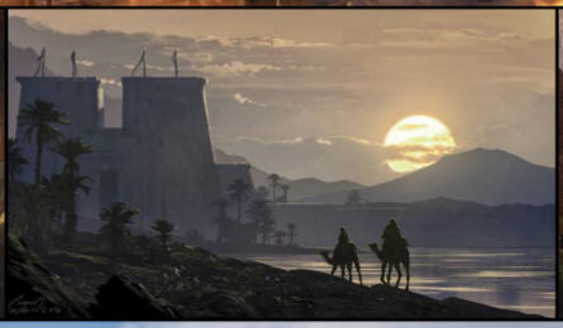
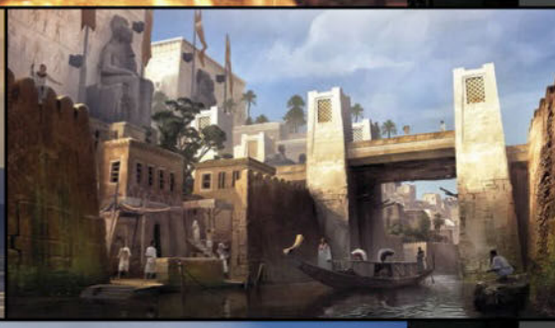
This guy really should have learned how to use a shield.







Origins is, quite literally, the next step for the series. Sorry.

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Bayek is odds-on to assassinate this dude at some point in the game.

Expect to be able to partake in a chariot racing minigame.

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ADDING TO THE EXPERIENCE

Assassin's Creed Origins isn't shying away from its new RPG elements. Enemies will display numerical damage indicators, experience points can be gained through most actions, and weapons have unique attributes such as poison or the ability to cause bleeding. It's not just surface level changes here, the developers are rethinking every aspect of the series with Origins.

"We changed the paradigm of our fight system, we removed the mini-map, we introduced much more RPG elements, such as the gear stats and rarities or the new quest system," explains Guesdon. "Those are drastic changes to gameplay and the extra year of development gave us the possibility to test them thoroughly and make sure they are at the right level of quality and refresh the experience while staying true to the franchise."

I didn't learn a whole lot about Bayek or his quest in my time with the game, but his character became clear early on. He's more of an Obi-Wan than a Han Solo; quiet when he needs to be, but always ready to take charge. Thankfully, Bayek isn't too self-absorbed or overly moody and does show affection for playing children and the townspeople in general. He's interested in helping out the less fortunate, even if the reward for doing so isn't clear.

Of course, this is just one side of the story, and, like the previous mainline Assassin's Creed games, Origins takes place inside of an Animus computer simulation, but nothing substantial has been revealed about that side of the game just yet. One thing that has been confirmed is Bayek's wife Aya will be a playable character, as will an undisclosed number of other characters. But the developers did stress that Bayek is the primary protagonist so don't expect the campaign to divided up too much.

GET ON MY LEVEL

The Assassin's Creed series has had RPG elements slowly creep into the series over the years, with 2015's Syndicate taking the biggest steps forward. Yet it was clear even then that there was room for improvement. The biggest issue with Syndicate was that the only way to gain experience points was by completing missions and side-quests, which makes sense on paper but doesn't reward the player for actually playing how they want to. It rewards them for playing how they should be playing. Origins hands out experience points more generously, which means engaging in a simple street fight or going in search of lost treasure will contribute to your overall character progression.

"[A] player's level and how it compares to [their enemies] is fundamental in the experience as it will be very difficult for players to kill opponents that are several levels above them," said Guesdon. "Levelling up not only makes your Assassin stronger, it also grants Ability points that can be spent to obtain a specific capacity, such as more precise aiming with their bow or being able to poison dead bodies. There are three main branches in the Ability tree, the Master Warrior branch that focuses on melee combat, the Master Hunter branch dedicated to range weapons and stealth, and the Master Seer that is more about tools and manipulating the environment and animals."

In addition to growing Bayek's strengths, players can craft items to upgrade certain equipment, much like players were able to upgrade their equipment to hold more guns or ammo in the more recent Far Cry games. An example Guesdon gave is if a player decides to spend ability points on stealth skills and unlock abilities like air assassinations, they had also better upgrade their hidden blades as some higher level enemies might be able to block a lower level blade that would otherwise cause a one-hit kill.

This new take on weapons and their abilities gives each of them their own character and use case. Take bows for example - there's the standard long-range hunter bow for taking out enemies quickly, the warrior bow that lets you fire multiple arrows at once like a shotgun blast or the nimble rapid-fire bow which is great for big charging enemies who may need a few shots to be taken down. There's also a very video-gamey sniper bow that allows players to guide the arrow mid-air ever so slightly. It's far from realistic, but then again you're technically playing as someone reliving their ancestors lives inside a computer, so realism can take a backseat to fun on this one.

IN THE BEGINNING

Taking the Assassin's Creed series to Egypt feels like an ace Ubisoft has had up their sleeve for some time now. So much of the mythology built up since the series began nearly a decade ago has had references going all the way back to Ancient Egypt. With that in mind, it makes sense that when the series is in the most need of refreshing this is where we'd end up.

> "Bayek is more Obi-Wan than Han Solo; quiet when he needs to be, but always ready to take charge"

But both hearing and seeing the work that has gone into Origins, it's fair to that this is far from a back to basics approach, and if anything it's the serious upgrade the series has needed for a while now. Still, it's going to be an uphill battle to convince those burned by the series that now is the time to jump back in. But after playing Assassin's Creed Origins for myself and hearing how committed the developers are to reinvigorating the series, it feels like the series is back on track and ready for its next Black Flag moment. PC

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PROJECT CARS 2

Racing game standfirst

DEVELOPER SLIGHTLY MAD STUDIOS
PUBLISHER BANDAI NAMCO ENTERTAINMENT
DUE SEPTEMBER 22
www.projectcarsgame.com

I'm half way through a run of hot laps around the street circuit of Long Beach, California, in a fully kitted out racing simulator, complete with triple screens and a $40,000 D-Box motion platform when I hear a voice I recognise from the TV say something in my direction.

"Oh wow, you're pretty quick, man!"

"Thank you…" I reply sheepishly, focusing instead on trying to wrestle the beastly DW-12 Indycar over the bone-shaking bumps whist threading the concrete barriers that line the track's limits. As I cross the line to finish the pre-allocated number of laps, a familiar figure sidles up next to me, looing intently at my lap times.

The figure was Nicolas Hamilton; professional racing driver, brother of three-time Formula One world champion Lewis Hamilton, and handling consultant for Slightly Mad Studios. Along with SMS Chief Commercial Officer Rod Chong, Hamilton was in town showing off Project Cars 2, the sequel to 2015's multi-million copy selling racing title, Project Cars.

Hamilton is also an avid sim-racer, confessing his love for the hobby without a moment's pause. Having been a part of the team of professional drivers lending their feedback for the first Project Cars, being asked back for a second time to give feedback on Project Cars 2 seemed just as much a delight for him.

"It's awesome, I love it," he beams as we look on at someone else taking a GT3 car for a spin across the top of the unmistakeable Mount Panorama Circuit in Bathurst. "The hardest part is that all the feedback must be written, but I'll give comments on the AI, the tyres, the way the car feels in different conditions… it's all important."

It's my turn to hop back in the simulator again. Chong asks me if I have any preferences. Determined to show off my skills, I confidently asked to be put in an LMP1 car, in the rain, at Circuit of the Americas. Chong walks me through setting up a multi-class race which seemed as simple as choosing some different classes and tweaking a few sliders. Before I knew it, I was in pit lane.

Driving out onto the circuit I could immediately feel the difference in grip from the dry. Any touch of the throttle wanted to make the rear tyres spin out of control, so gingerly I made my way around the first corner before slowing pressing the gas to see what the car could do at speed.

"You'll want to watch out for the rumble strips and painted white lines when the track is wet" Chong reminds me. I took the comment with some scepticism at first. It's not the first time a racing title has promised this sort of detail - the kind that only a driver or super fan would know to think of. I immediately tried to use the curbs, confident I'd feel no change in the grip given to me by the wet track. I was very wrong. The back end snapped out on me violently, causing me to spin and slide embarrassingly off towards the circuit's colourful infield. This is the kind of detail that comes from professional driver feedback, and is indicative of just how seriously SMS are taking Project Cars 2, as Chong points out to me later.

"We want these racing drivers to tell us when we're doing a bad job." he says with a laugh.

"A lot of people say that using racing drivers is a PR stunt. That's a big challenge we have because we get guys like Nicolas here, we get people like (Le-Mans 24hr winning driver) Tommy Milner telling us our tyre model is something he's not happy with. They're hard on us, you know?"

> "the back end snapped on me violently, causing me to spin and slide embarrassingly"

When asked what the biggest focus area of the game was once production began on Project Cars 2, Hamilton cuts me off.

"Tyre model," he says without hesitation, before Chong elaborates.

"Shortly after release we started planning what the new game was gonna be, and that came to us fairly easily. We also got some other racing drivers involved; who didn't participate in the main physics development for Project Cars 1. Notably we did some tests with two of the Bentley factory drivers. We put them in the Bentley GT3 at Bathurst because they were fresh from the Bathurst 12 hours at the time. They had some criticism of the tyre model.

"There was a moment where the back stepped out in the car and they corrected as they would in real-life, and they spun. They turned to us and said "I should've been able to catch that". So from there we had a lot to plan in terms of what updates we were going to do to improve that side of things."

Chong was also quick to acknowledge that the shortcomings of the original had left the hardcore sim-racing community with some reservations leading into Project Cars 2, but felt adamant they'd done the work to allay many of their fears, particularly around the tyre model.

"It was always the same - there was no dynamics. It wasn't dealing with the tyre as a 3D squidgy object that's filled with air. So we're coming in with this new system, and yeah, we admit that there were some issues with what we had in Project Cars 1, particularly when driving over-the-limit. But we're coming in now with the next generation beyond that, and we know that it's verified to be like the real thing. We're getting situations now where we're getting parity between real racer and sim racer, they're getting the same lap times out of the box.

"I think it'll be a bit of a slower process to convince the hardcore. We keep an eye on that community, and we know they look at us with a bit of suspicion, but we accept that. We know what we've made."

JAMES SWINBANKS PC

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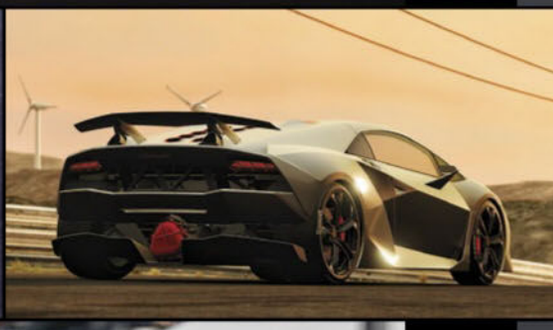
Project I Really Should Clean All The Dust Off My Dashboard.



Project Sometimes There's Nothing You Can Do About Your Sponsor's Embarrassing Logo.

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Those mushrooms look like the real bio mutants to us.

From the makers of Just Cause comes... a hairy pink Cerberus.

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BIOMUTANT

Samurai Pizza Cat

DEVELOPER EXPERIMENT 101
PUBLISHER THQ NORDIC
DUE 2018
biomutant.com

You might not know the name Stefan Ljungqvist, but he's been working on games for 15 or so years, both as an art director, designer and team leader on games ranging from the adventure game Gast, to the open world action of Just Cause 2 and Mad Max. After leaving Avalanche Studios in 2015, Ljungqvist founded independent developer Experiment 101. Don't let the independent nature of the studio lead you to think that the studio isn't ambitious, however – Biomutant, the first game from Experiment 101 looks about as ambitious as you can get.

An open world action RPG billed as a "Kung Fu Fable", Biomutant is set in a post-apocalyptic universe of mutants in which a plague is further decimating the land. The Tree-of-Life has become the tree of death, spreading decay from its roots. The various mutant tribes stand divided. The world needs someone strong enough to either unite them or destroy them once and for all. The player, of course is that certain strong individual, an ugly/cute furry mutant cat/raccoon thing. At least that's what they are in the beginning. Throughout the game players will be able to modify the character physically by mutating their body or adding cybernetic prosthetics. We're not sure how the mechanic will work in practise, but in effect players will be able to grow claws for melee combat, wings, different kinds of legs and the like, each changing the way the character plays. Some mutations or prosthetics will alter the way an established mechanic works, while others will grant new powers and abilities.

Players will also be able to craft their own weapons from parts found throughout their adventures. Again we're not entirely sure how this will work but the developers say that players will be able to mix and match parts to make unique one or two handed slashing, piercing or crushing weapons. Combat will be a combination of kung-fu and gunplay, and it looks as though players will be able to craft guns in a similar fashion to melee weapons. The gunplay looks fast and furious, dealing good damage and allowing the mutant hero to continue or extend combos, as well as having special moves – dual wielding one handed guns gives the players a short AOE flourish that can damage all surrounding enemies by the looks of it. We're not sure of what long guns can do as yet.

Exploring the open world looks as though it will be a key component of the game, and to this end there will be a number of vehicles available to facilitate moving around. The b-roll footage we've seen includes a jet-ski, a wind up hand that functions as a mount but can also flick enemies or shoot them with a finger gun, and a hulking, heavily armed mech suit.

> "that certain strong individual, an ugly/cute furry mutant cat/raccoon thing"

There will also be gliders, hot-air balloons and more. Of course, with various mutations or prosthetics, players will also be able to run faster, jump higher and even fly under their own power.

There is no official release date for Biomutant as yet, but Experiment 101 and THQ Nordic are positive the game will be available some time in 2018. *DANIEL WILKS* PC

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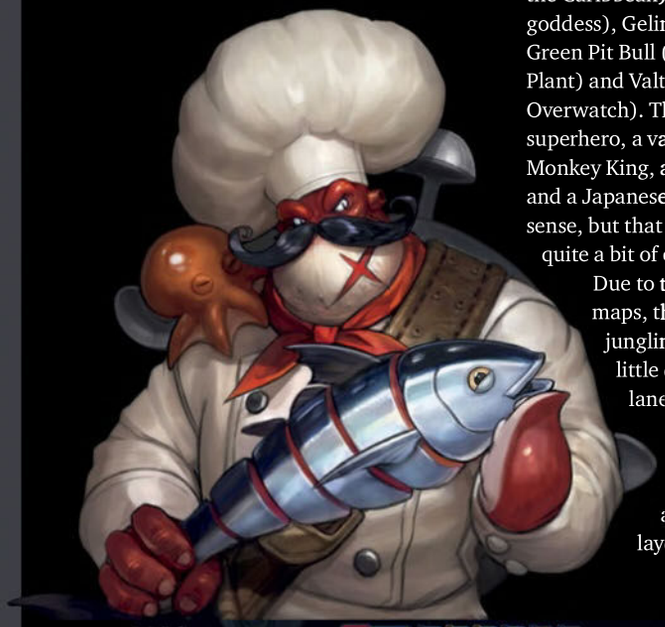
HYPER UNIVERSE

DEVELOPER CWAVESOFT, INC.
PUBLISHER NEXON AMERICAS INC.
DUE EARLY ACCESS
hyperuniverse.net

This probably won't come as much of a surprise to anyone, but I've never been a fan of MOBAs. I've tried a few and they all were either unwelcoming or uninteresting for the most part. This could be because I've never been much of a fan of RTS games so didn't really have the drive to jump into the mods (at first) and then the fully fledged games later. Now along comes the first MOBA that has really captured my interest, Hyper Universe, and that interest is due to a simple change of perspective.

Rather than the top down or isometric approach of most MOBAs, Hyper Universe instead adopts the 2D perspective of a side-scrolling beat-em-up and some of the gameplay synonymous with the style. Each of the 28 characters (24 unlocked initially and four more unlocked through levelling) has basic button machine fight combos as well as cooldown based powers that will be familiar with any MOBA player. The characters themselves are a real ragtag group. There is no cohesion in design or genre leading to a pleasantly anarchic sensibility. The characters, or "Hypers" as they are called in the game, fall into six class categories, Tanks (pretty self-explanatory), Bruisers (melee combatants), Specialists, Strikers (sustained long range damage), Support and Assassins (burst damage specialists).



To give you some idea of how disparate the characters are, the Tank roster consists of Admiral W (think Davey Jones from Pirates of the Caribbean), Athena (the Greek goddess), Gelimer (Frankenstein), Green Pit Bull (Audrey II/Piranha Plant) and Valter (Reinhardt from Overwatch). The Bruisers are a superhero, a vampire, Sun Wukong the Monkey King, a tiger cub riding a rhino and a Japanese robot. It makes no sense, but that lack of cohesion adds quite a bit of charm to the game.

Due to the 2D nature of the maps, the way laneing and jungling works is handled a little differently, with the lanes being stacked on top of each other. Not only does this make for a novel take on the tried and true MOBA map layout, it also means that the ladders and portals connecting lanes become ambush points for unwary players. The jungle style lanes are populated with mobs that can be killed for XP and team buffs in traditional MOBA fashion.

Although the perspective is new, the main flow of the game is quite traditional, with two teams fighting to destroy the other team's towers to give them access to destroy their base. Where things become a little more interesting is the fact that there is no mouse aiming needed for ranged abilities – attacks can only be directed left or right, making combat feel a whole lot more frantic and immediate. Whether this will appeal to hardened LoL or Dota 2 players is up in the air, but for someone who hasn't been able to get into MOBAs as a whole, the immediacy has some genuine appeal. Hyper Universe is currently in early access with no solid date for release as of yet. *TAVISH FORREST* PC

Tavish is into any game where a vampire can fight a tiger cub riding a rhino.

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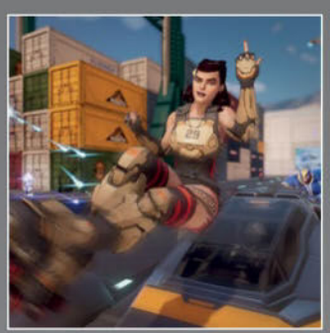

The pace is the trick

Timing is everything in two of this month's games

There's an old military axoim that says that the secret to victory is to get there first with the most guns. It's one of those cheeky pieces of wisdom which seems simple, but is really, really hard to deliver in practice. A lot like Battlestar Galactica Deadlock's gameplay, actually. Even taking its turn-based nature into consideration, the game feels satisfyingly ponderous. But while it might seem like you have all the time in the world, getting your ships in position, and en-masse, is a massive challenge. Pull it off, and you can wipe out an enemy capital ship in no time - fail, and you'll get picked off in turn.

Thankfully, the turn-based nature of Deadlock helps do away with one of the big issues I had with the otherwise very intriguing Absolver. Despite all the trimmings, it's a fighting game at heart, all about landing combos and timing your parries and dodges. But, being real-time, lag - or lack of it - is massively important. And so far in our game sessions, lag has meant timing is impossible, and so the game plays like a mess.

Back to Deadlock it is, until Absolver's netcode settles down.

David Hollingworth
Digital Editor

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REPUBLIC OF GAMERS

SCORING SYSTEM | PCPP scores its games on a 1 to 10 scale. The higher, the better – though 10 is by no means a "perfect" game. We're not convinced such a thing exists, so consider a 10 a masterpiece of PC gaming, despite its inevitable flaws. A 5 is a decidedly average game; one that doesn't excel in any particular area, without being an affront to our senses – the ultimate in mediocrity. Below this, you'll start to find the games our reviewers suffered an aneurysm getting through; above it, the titles truly worth your time and money. And remember: a score is only a vague indication of quality. Always read the full review for the definitive opinion!

WE PLAY ON:

ALIENWARE
GAME VICTORIOUS

SAMSUNG
950 PRO

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Agents of Mayhem

I'm a computer!

DEVELOPER VOLITION
PUBLISHER DEEP SILVER
PRICE $59.99 USD
AVAILABLE AT STEAM, RETAIL
www.aomthegame.com

Before developing Agents of Mayhem, developer Volition had already parodied the superhero genre with the excellent Saints Row 4, a game in which the leader of the Saints is now the President of the US and must fight back against alien invaders. For a series that began as a tongue in cheek shot at GTA and its contemporaries, the final full outing fully embraced the absurdity of both the premise and the superhero conceit. Set in the same universe as Volition's other games, Saints Row and Red Faction, Agents of Mayhem follows on from the "Recreate Earth" ending of the Saints Row IV standalone expansion Gat out of Hell, and presents a near future in which the Saints don't exist, but the super-agent group M.A.Y.H.E.M. (Multinational AgencY Hunting Evil Masterminds) founded by Persephone Brimstone (a character from Gat out of Hell) and funded by Ultor Corporation, the antagonists of the Red Faction games and the Saints in Saints Row 2 before the corporation merged with the Saints in Saints Row: The Third, protects the earth from evil. All of this is a rather roundabout way of saying that Volition has trod the ground of Agents of Mayhem before. For some reason or other, however, rather than combining the sum of experience from previous games to create something new and special, Volition has somehow developed a game that, while enjoyable enough to warrant wasting a few hours on, ultimately feels like a half-baked version of the games that came before.

Based both on superhero tropes and Saturday morning cartoons, Agents of Mayhem sees teams of three agents fighting against the forces of L.E.G.I.O.N., the League of Evil

Knock back enemies using the blinding light of your glistening pecs.

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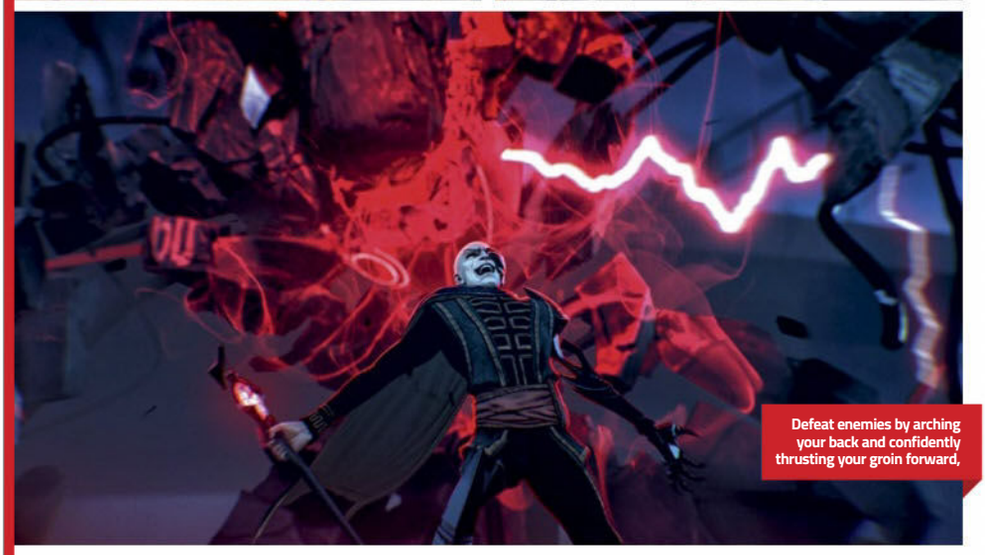
Gentlemen Intent on Obliterating Nations. The Agents themselves are essentially action figures brought to life, each with a unique weapon and approach to combat, an idea heightened by the fact that loading screens feature pithy bits of advice (none of it useful, only some of it funny) much like the "The More You Know" PSAs crossed with the Fenslerfilm GI Joe PSA parodies. Set in a near future Seoul, South Korea, the world's leader when it comes to innovative technology, the Agents fight against a branch of LE.G.I.O.N. headed by Doctor Babylon, a madman intent on using dark matter crystals to do something evil. His plan doesn't make a great deal of sense, but when it comes to Saturday morning cartoons, logic has never really been the strong suit of evil.

Initially players have access to three agents, the TV star and bounty hunter turned super agent PR man for Mayhem, Hollywood, the Colombian sky pirate, Fortune and giant seaman, Hardtack, while another ten are unlockable through either the story missions or through character specific missions. These "AOM Special Episodes" show the game at its best, giving players more of an insight into the characters they unlock and also feature some of the best writing in the game, as the jokes can be made character specific rather than generic as they are in the open world. Unlocking Daisy, a tattooed bombshell roller derby badass with a minigun requires players to make their way around Seoul trying to find specific places to jog Daisy's memory of what happened the night before when she went on a bender. Unlocking Johnny Gat (a cop killer in the Saints timeline but a killer cop in the Agents timeline) has him ostensibly teaching a rookie robot cop about police work. They're fun, mostly funny and don't outstay their welcome, lasting only about ten or so minutes a piece.

There are enough Agents that everyone should be able to find a team of three they like. For my part



Defeat enemies by arching your back and confidently thrusting your groin forward,

> it's understandable that an evil mastermind might desire uniformity in base design

WHY SHOULD I CARE?

+ You love Uranus jokes

+ You like familiar locations

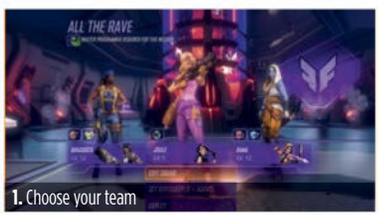
+ You can't wait for Crackdown 3

I mostly played with Rama, a long range glass cannon bow user who can cause damage over time, Braddock, a fairly straightforward soldier with the ability to call down orbital lasers, and either Daisy, the aforementioned roller derby tank, or Joule, a turret using Italian engineer/fashionista. Each agent has their own unique weapon, special ability that works on a timer and "Mayhem" ability that is charged through combat. Characters can be modified by swapping in and out three abilities: their special ability, weapon ability and passive ability. These alternate skills or upgrades are unlocked through levelling and can also be found in the game world. These three skill slots can also be augmented further with Legion Gadgets, modifiers that can be added to give extra abilities to the character. Braddock, for instance, has a Legion Gadget that grants her fast movement for a short while after killing an enemy with a critical hit. Each character also has a specialisation when it comes to combat as well. Some characters are good at taking down shields, others are good at taking down armour, and others do extra damage to doomsday machines or enemy leaders. As agents level they gain access to extra specialisations, making it easier to balance a team the more you play.

Combat is fun and learning how to take on the different types of enemies with different team compositions, and there's a pleasantly chaotic feeling to proceedings that keeps fights fresh. Unfortunately, that chaos and fun of combat doesn't really extend to mission

SEQUENCE

MISSION STRUCTURE



1. Choose your team

2. Drive to mission start

3. Kill a bunch of dudes. Repeat.

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and world design. Seoul is quite small for an open world, but that doesn't stop it from being filled with cookie-cutter areas and repetitive content. Similarly the story missions rarely do more than introduce a new villain every four or five outings. The missions in between usually see the agents going to an area, killing some enemies before heading to another area, killing enemies, entering a Legion base that looks and feels like every other Legion base you've fought your way through, and then doing it all over again. It's understandable that an evil mastermind might desire uniformity when it comes to base design, but when it comes to gameplay, it's boring.

Agents of Mayhem is also riddled with little glitches, none of which have been fatal but most of which have been very annoying. NPCs sometimes failed to trigger for the next part of a mission, requiring a restart from last checkpoint. For a number of missions I was unable to call my vehicle for no apparent reason. At one time a prompt from a character mission (unlocking Red Card, a crazy German football hooligan) to hit Q to use a special power stayed on screen for the next few missions, but while it was there I couldn't use special powers with anyone aside from Red Card.

Agents of Mayhem isn't a bad game. It's fun enough to warrant wasting some time playing, but it's nothing special. The game is pretty much the very definition of OK. There's nothing particularly bad about it, but there's nothing overly memorable aside from the fact that the Volition games that came before it did many of the same things but did them better. For whatever reason - maybe it was a case of budgetary restraint, or maybe it was deadline crunch - Agents of Mayhem feels somewhat like an unpolished draft of a much better game. It's repetitive, not particularly funny, repetitive and not particularly funny, and ultimately feels more like a knockoff of Crackdown and Saints Row IV than a new game in its own right. *DANIEL WILKS* PC

AGENT ANATOMY

1. Depending on their role, agents have different health and shield pools. Yeti is a health based tank

2. Shields recharge during play while health only recovers with abilities or when the agent is inactive

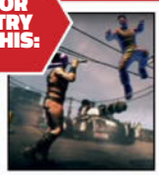
3. When the Mayhem bar is filled an agent can use their most powerful special ability

4. This mission lasted roughly forever as the trigger for the next part of the mission never activated

5. Bad guy dying

6. Yeti gained five levels from the neverending enemies before we quit

OR TRY THIS:



SAINTS ROW IV
VOLITION, 2013
- Irreverent superheroes
- No Saints Row V

GAT OUT OF HELL
VOLITION, 2015
- Sacrilegious superheroes
- Patchy

JUST CAUSE 2
AVALANCHE STUDIOS, 2010
- Super (suave) agent
- Just Cause 3

VERDICT:

Unfinished and unpolished, like a poor facsimile of what came before rather than a new game

6

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Tacoma

Objects in space

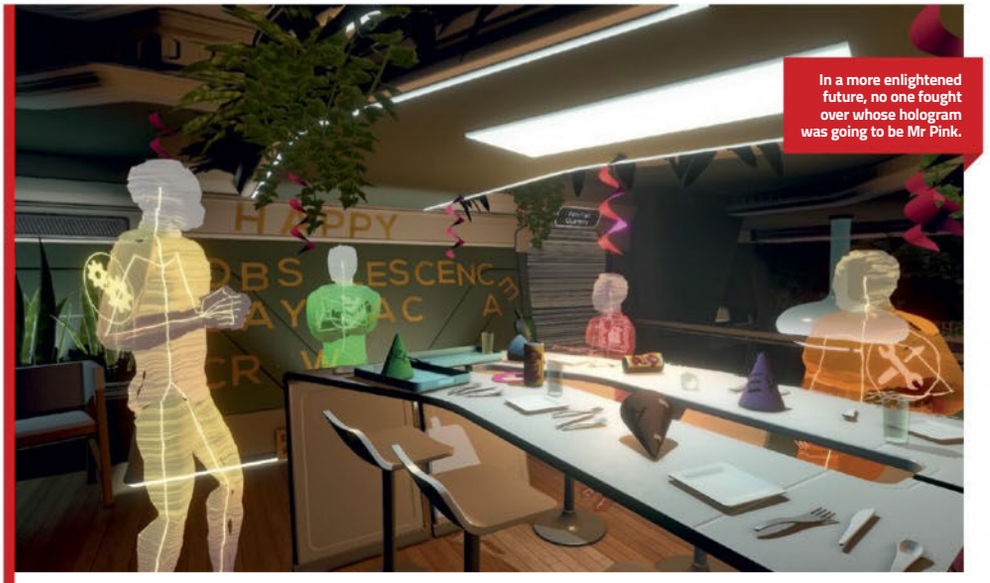
DEVELOPER THE FULLBRIGHT COMPANY
PUBLISHER THE FULLBRIGHT COMPANY
PRICE US$20
AVAILABLE AT STEAM, ITCH.IO, GOG
tacoma.game

As a genre label, "walking simulator" is most often used as a pejorative, despite the best efforts of those fans who have sought to reclaim the phrase. I first heard it applied to Dear Esther and thought it fit that game's poignant stroll through the Scottish tundra, albeit in an amusingly reductive way. The problem with using "walking simulator" to describe Firewatch, Jazzpunk, Virginia or Gone Home is that the walking is the least interesting thing about them.

Tacoma is the second game from Fullbright, the creators of Gone Home. It's similar in some ways, but also shows the developer is confident enough to tackle something more ambitious.

As in Gone Home, you're exploring a modestly-sized environment - in this case a space station comprising half a dozen multi-roomed sections. And, also like Gone Home, you're trying to piece together the events that occurred just before you arrived - in this case what happened to the six-person crew of the Tacoma.

Where Gone Home triggered simple audio diaries spoken by the main character when you picked up a pertinent object, Tacoma opts for a far more elaborate recreation. Everything aboard the station is recorded and able to be replayed using sci-fi augmented reality tech. As you move from section to section you'll witness AR holograms of the crew running through scenes that took place days earlier. You'll see them walking about, performing their duties, talking with each other, or sometimes just chilling out. You can pause and rewind to see what that crew member was doing earlier before entering the room.



In a more enlightened future, no one fought over whose hologram was going to be Mr Pink.

> "like you're watching a play, except you're up on the stage mingling with the actors"

Typically in games like this you're made to feel like an archaeologist, digging up digital remains to study the past. With Tacoma, however, I feel like a different metaphor is warranted.

Here it feels like you're watching a play, except you're up on the stage mingling with the actors and following them around, even if you can't interrupt their lines. You can, however, pick up and examine a host of objects, rifle through desks and drawers, and even interact with the AR desktops of each crew member to read some of their recent emails or listen in on recent calls.

It all adds up to a remarkably effective way of telling a story. The crew members transcend their brightly-coloured hologram depictions and become what feel like real people. Thanks to the quality of the writing, you'll understand each person's history, their motivations, their fears, and their relationships to each other, in a way that few games manage.

You don't do a lot in Tacoma, at least in a conservative gameplay verb sense. You walk around and pick things up and that's about it. Instead, what you do in Tacoma is observe and think and connect the non-linear dots of its layered story. And you care about and empathise with and root for the six people who were there before you.

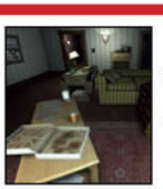
DAVID WILDGOOSE PC

WHY SHOULD I CARE?

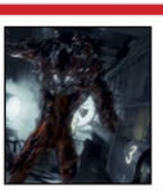
+ You get a kick out of spying on people
+ You believe in the rights of artificial intelligence
+ You want to hear a story told out of order

OR TRY THIS:

VIRGINIA
VARIABLE STATE, 2016
+ Deft non-linear story-telling
− Too much gravity



GONE HOME
FULLBRIGHT, 2013
+ Actually set in the Pacific Northwest
− No ghosts



PREY
ARKANE, 2017
+ Let's see what happened on this space station
− Oh, I died again

VERDICT:

A bold, ambitious step forward for the - hnngh - "walking simulator".

9

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Absolver

No retreat, no surrender

DEVELOPER SLOCLAP
PUBLISHER DEVOLVER DIGITAL
PRICE $29.99
AVAILABLE AT STEAM, GOG
absolver.com

Absolver is a game not quite like anything you've played before. There are instantly recognisable elements – the methodical, tactical combat and shrine (bonfire) based spawns of something like Dark Souls instantly springs to mind – but due to the way the story is approached, the pacing and way that online is integrated into the game makes Absolver a whole different, confounding and kind of wonderful beast. What is an Absolver? It's not expressly clear exactly what they do aside from fight for stability against masked enemies. Given that everyone aside from a few given individuals wear masks in the world of Absolver, what exactly makes most of these combatants the enemy isn't really made clear. It could be that they are all evil and that the strange world that might be some form of magical VR simulation is their prison, but it's just as likely that they may be aggressive because they've heard stories about the player-character and don't want to be beaten to death like the many who have crossed their path before. It's hard to know. With the exception of a handful of NPCs, nobody in Absolver has anything to say on that, or any other matter. They are as silent and emotionless as their masks.

Whatever the case may be, in this strange, broken and sad world populated by violent masked martial artists, players take the role of acolytes striving to become Absolvers by learning new fighting styles, becoming better warriors and vanquishing a number of named or numbered enemies. When it comes to aesthetics, there is very little for the player to do during character creation outside of choosing a haircut and skin/hair colour. Appearance can be modified through play with new armour and masks offering greater protection and more striking looks. More important than appearances are fighting styles. The first choice players need to make is the form of fighting they want to focus mainly on, or more precisely, the form of defence. There are three available from the outset and a fourth available after completing the PvE portion of the game. The initial styles, Kahlt, Windfall and Forsaken all focus on unique ways of dealing with incoming damage. Kahlt is a power style focussing on strength and uses absorption to deal with damage. Absorbing an attack prevents stagger allowing for a quick counterattack and also allows players to regain the health they lost while attacking after an absorb. Windfall is a fast, dexterity based style that utilises avoidance to deal with incoming damage. Avoiding an attack slows the enemy briefly allowing for easier counterattacks. Forsaken is a balanced style between strength and dexterity and uses a parry mechanic. Successfully parrying an attack stuns an opponent for a split second allowing for a guaranteed punish.

Along with the defensive ability, each combat style comes with a basic combat deck, a number of moves that can be strung together based on stance. A player's combat deck can have a total of 12 moves and four alternate attacks equipped, the only proviso of how combos are put together is that

His style is waterproof and strange

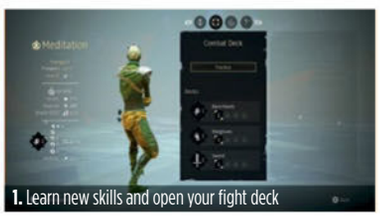
> "and combat becomes a crazy dance of blows, counterattacks, and near misses"

WHY SHOULD I CARE?

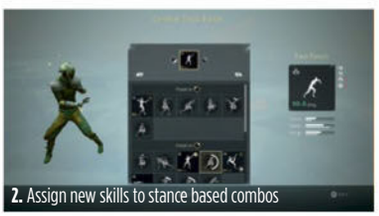
+ You have a face for radio
+ You don't suffer maskaphobia
+ You do suffer maskaphobia
+ You prefer to let your fists do the talking

SEQUENCE

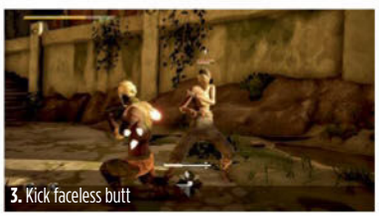
MOVE LIKE WATER



1. Learn new skills and open your fight deck



2. Assign new skills to stance based combos



3. Kick faceless butt

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the next move in the sequence must start from the stance the previous move ended in. There are four stances – forward, left, right and back – and each stance has moves corresponding. A roundhouse kick, for example takes a player from forward stance to left stance (facing left), so the next regular attack in the sequence might be a right elbow or a backhand. It's a deep and intricate fighting system open to a great deal of experimentation. The game is best played with a controller, and holding the right trigger allows players to change stances so a basic combo can extend in multiple ways, with each angle of attack giving rise to four options for the next attack. It sounds intimidating and to begin with it is, but after only an hour or two the system makes perfect sense and combat becomes a crazy dance of blows, counterattacks, and near misses.

New moves are learned through fighting or by joining martial arts schools. Blocking an attack you don't already know allows you to learn a little something about it. Block enough times and you'll learn the move and add it to your deck. Using your style's defensive move successfully against the attack gives more experience. After a player has reached a certain level of experience and moves they can open their own martial arts school, and any player who joins that school can learn the moves in the teacher's deck. In addition to normal moves, defeating the named and numbered targets in PvE also rewards the player with special skills powered by shards, a power source charged through defeating enemies. Players can also learn weapon styles or fight with shards of weapons scattered around the game world.

That's just PvE. There's a whole PvP game in Absolver as well, with 1v1 and 3v3 matches, players being able to invade other player's realms to either help them or challenge them and more, with the developers promising more online modes to be released after launch.

Absolver is a strange, often frustrating but equally fascinating game. It's all but silent world is a mystery, as are the motivations of its inhabitants, but this otherworldly mood serves to heighten the individual stories of martial arts mastery you can tell yourself within. It's a strange game. It's also kind of wonderful. *DANIEL WILKS* PC

DON'T THINK, FEEL

1. Abilities powered by the glowing crystals on your back. In this case healing and a stamina drain

2. These two are tough named bosses

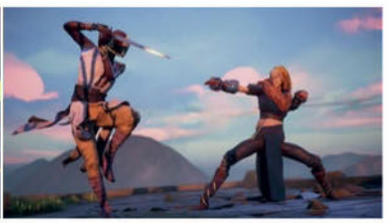
3. The austere health bar. You can regain health by defeating enemies or using powers

4. Blocking her attack helped me learn a little more about it

5. A dexterity based character

6. Stamina is depleted through attacking or blocking

7. The current facing of your stance



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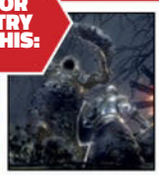

DARK SOULS III
FROMSOFTWARE, 2016
- Measured, strategic combat
- Lacks kickety-punch

TORIBASH
NABI STUDIOS, 2006
- Create your own moves
- Flop around

DONG DONG NEVER DIE
2DFM, 2009
- Dong Dong never died
- Dong Dong 2 threatened

VERDICT:

The world of Adal keeps you at arm's length but the intricate and clever fighting will pull you right in.

8

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Hellblade: Senua's Sacrifice

Not-so-heavenly sword

DEVELOPER NINJA THEORY
PUBLISHER NINJA THEORY
PRICE US$30
AVAILABLE AT STEAM, GOG, HUMBLE
hellblade.com

Hellblade is a bold departure for UK developer Ninja Theory, a deeply atmospheric narrative-driven adventure that sidelines the studio's traditional emphasis on fluid and stylish combat in favour of immersing you in the mind of its lead character. *Hellblade is a misstep for UK developer Ninja Theory, a messy mish-mash of genres whose repetitious mechanics fail to satisfy or support a confusing and, for all its displays of emotion, oddly uninvolving story.*

Senua looks like a 2017 video game action hero. She's lean and taut, dreadlocked and face-painted. She physically resembles Aloy from PS4 game Horizon: Zero Dawn, but mostly in a way that highlights how female leads are still few and far between when it comes to action games.

Despite the default third-person over-the-shoulder camera, you see a lot of Senua's face over the course of the 4-5 hour game. And it's quite a face. In stills it looks quite realistic and is a great showcase for Ninja Theory's continued ability to make games that look really really good. During the plentiful cutscenes Senua often turns to face the camera - often, in fact, turns to look directly at you, as if she somehow knows you're watching her. *No, it's not real, there's no one there.* The performance is raw; rage, desperation and fear all vying to be the thing that pushes her over the edge. *Those dead eyes, though, that slack-jawed mouth. Once you notice them much of the tension dissipates.*

Senua is making a journey to hell and, hopefully, back. *She's getting a crib note version of Norse mythology.* She's there to avenge *lay to rest* memorialise her dead lover *kill the bastards who did this* rip asunder the very foundations of Valhalla *destroy every last fucking god she can find.* She'll stop at nothing. *Turn back.*

High Lord Wolnir on vacation from the Dark Souls 3 catacombs.

> rage, desperation and fear all vying to be the trhing that pushes her over the edge

WHY SHOULD I CARE?

+ You think reliable narrators are overrated

+ You've always wanted to take a holiday to Niflheim

+ You put story before gameplay

Her journey consists of a lot of walking. *There's a jog button.* Senua walks through a series of vaguely Nordic environments solving puzzles to open the artificial doors that block her progress, fighting the occasional group of enemies, and listening to the voices in her head. *Don't listen to them.* No, I must. *You can't do this.* I have to. Just a little further. *Follow the fire.*

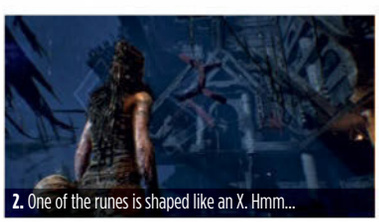
Though initially alarming, Senua's competing internal monologues cancel each other out in their bid to keep you second guessing yourself. They occupy this weird spot that's part affecting insight into her state of mind and part exhausting background noise I sometimes found myself tuning out.

The puzzles test your ability to observe the world around you. For the most part they're simple enough *they're too easy.* Early on you'll encounter a door locked by a runic symbol, for example a vertical line crossed at its midpoint by a shorter, slightly angled line. Somewhere in the surrounding location *back down the path* no the other way, over the bridge *maybe from a certain vantage point that tree stump and that branch* there it is, inside the hut, the missing planks in the wall. Find the rune in the wild and the door will magically open.

SEQUENCE

HOW TO OPEN A MAGIC DOOR

1. Find the door and check the runes that are locking it.



2. One of the runes is shaped like an X. Hmm...

3. From this angle, yep, there it is, a perfect X.

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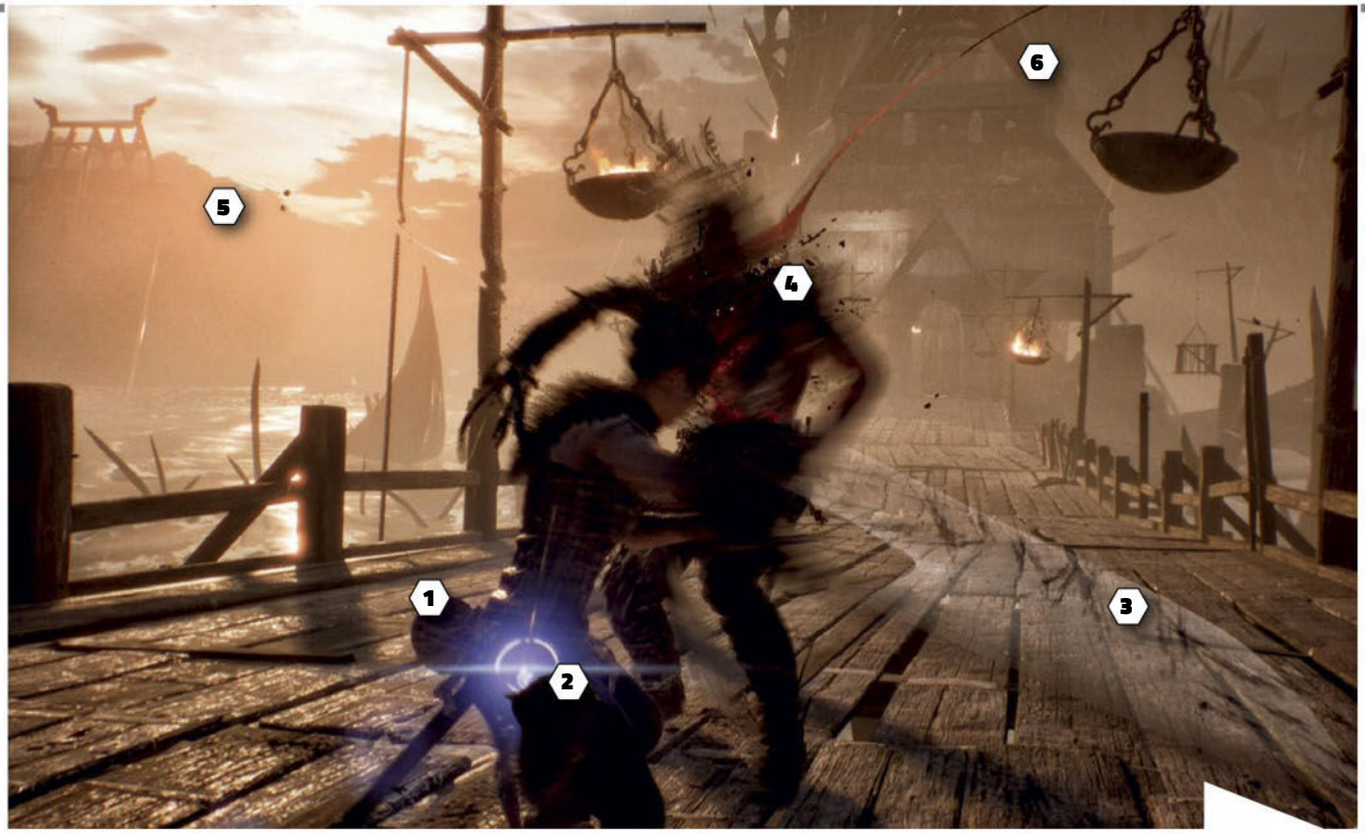


Later puzzles get more complex *just barely* and add variation, such as the portals that alter the landscape *was that bridge there before?* when you walk through them from a certain direction. The pattern remains, though: find a door, determine the puzzle type then backtrack through the area you just traversed and pay close attention to the environment, rinse and repeat. The puzzles tend to feel too gamey *out of place* in a way that doesn't sit with the internal drama of Senua's journey *and they never threaten to make you think outside the box,* just follow the dots.

Look out! There are enemies, too. *I can't do this, I can't beat them.* A few times each area Senua will encounter a handful of enemies to dispatch. They come in waves, at first one at a time then later two and even later more. Senua's got a fast attack, a heavy attack, a block, a dodge and a sort of kick that pushes enemies away or breaks their guard. The camera pulls in extremely close for these fights *too close* making it impossible to see *where are they?* behind you. Often the only cue you're given of an incoming attack is the voice in your head telling you look behind you *didn't you just say that?*

Surprisingly, Senua is not the most agile warrior. Her dodge barely seems to move her out of the way of a swinging sword, but Hellblade's combat is just a case of timing. Hit the dodge button *not yet* no, that was too soon *wait for it* at the right time and she'll shrug off the incoming blow regardless of the sluggish animation. Button mashing the attacks in between dodges will do the trick *wait was that a combo?* and there's a focus meter that lets you button mash in slow-motion once built up. There are a few bosses, too, whose expanded movesets you'll need to learn *okay I need to dodge this attack* and when he crouches like that he's going to jump *and I need to be there to punish him when he lands*.

After the first fight Senua contracts a curse in her right hand. The game implies *threatens* that the curse will spread through her body with each death *and you will die* until it reaches her head at which point her quest will be over. Then just in case you didn't get the message *are you stupid?* text appears on screen to state that your save game will be deleted if you die too many times. *Don't die, don't die* I can't, I can't *get up, Senua* no I won't let it happen. It lends each combat encounter a tension that the actual fighting mechanics fail to deliver. *It's an illusion.* But what if it's not? *It's a trick don't trust it.* Maybe you're already dead?

With medicore puzzles and combat, Hellblade is left to rely on its story *its art direction* its harrowing audio *Senua herself.* I won't lie: I wanted to know what happens. I never really connected with Senua's goal but I wanted to know why she was willing to put herself through all this to get there. *DAVID WILDGOOSE* PC

INSPECT HER NORSE

1. Senua carries her dead lover's head on her hip.

2. When this glows you can use a special focus attack that slows down time.

3. This motion blur is Senua's sword, the only weapon you can use.

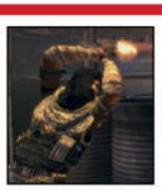
4. The basic enemy type. He also has a sword. Dodge his attack then hit him hard.

5. The scenery is lovely this time of year.

6. This tower is visible from pretty much anywhere in the game, and helps to orient you.

OR TRY THIS:

PSYCHONAUTS
DOUBLE FINE, 2005
- It's a mindfield out there
- Not serious enough



SPEC OPS: THE LINE
YAGER, 2012
- To hell and back
- And back again

NIFFELHEIM
ELLADA GAMES, 2016
- Vikings
- The opposite of harrowing

VERDICT:

A harrowing, relentlessly grim tale let down by workmanlike combat and puzzles.

7

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Observer

I've seen things you people wouldn't believe

DEVELOPER BLOOBER TEAM SA
PUBLISHER ASPYR
PRICE $29.99
AVAILABLE AT STEAM, GOG
observer-game.com

Being an Observer kind of sucks. It's low-paid work for a domineering corporation that involves enduring invasive biotechnological augmentations, an immunosuppressive drug dependency and a mandate to pry on the sub consciousnesses of the depraved citizens of tech-noir Krakow, 2084.

For player-character Daniel Lasarski, the night that Observer takes place is particularly unpleasant. After receiving a distressing call from your estranged son and tracing the signal to a lower-class apartment complex, you happen upon a series of grisly murders. This meticulously crafted first-person cyberpunk thriller admirably takes queues from Deus Ex, System Shock, The Cell and Blade Runner (Rutger Hauer even plays the protagonist), as crude electronics, body augmentations, neon lights, heavy rain, smokey exhaust ports and dilapidated buildings set the stage for a dark trip.

In true cyberpunk detective style you'll sift through seedy apartments hacking terminals, reading emails, studying forensics and jacking into the minds of others. Your high-tech rummaging is assisted through the use of two scanning augmentations: one for biological data - identifying blood stains, suspicious markings and injuries - and another for electronic signals - revealing which equipment can be interacted or interfaced with.

Scanning for these points of interest is a solid mechanic and helps sell the detective aspect of the experience, though one single scanning mode for both clue types probably would have sufficed; switching back and forth between "bio" and "tech" scanning visions as you probe a murder scene tends to add more nuisance than nuance to the gameplay.

Two cyberpunk men, observing each other. Yesterday.

> "the emotional impact is heavily reliant on standard horror conventions"

WHY SHOULD I CARE?

+ You want to be Rutger Hauer
+ Do you really need another reason?
+ You thought Split Second needed more mind hacking

As an Observer, Lasarski's most powerful tool is the ability to jack into the minds of other augmented characters, taking the player through nightmarish sections of the game to explore the warped subconscious of traumatised subjects in search of answers. While some impressive shader effects and tripped out visuals make these psychonautic invasions quite interesting to look at, their emotional impact is heavily reliant on the standard horror conventions we're all familiar with: a screech here, an audio-distorting crackle there, violent shakes, objects shifting by themselves and the odd jump-scare. Honestly, it's piled on a little thick. I tended to rush these portions of the game, hoping around each corner for the end to the segment, which often took a little too long to arrive.

Things get more severe the deeper you travel into the night. Lasarski becomes increasingly unhinged as his mind wrestles with the situation. These moments make for a suitably dramatic arc for the character, but I don't think Observer gives players enough time to enjoy its more subtle gameplay before going full Event Horizon on them. The regular setting of the game is very successful at being ominous and eerie without resorting to the tacky tropes of the horror genre. *MICHAEL JENKIN* PC

OR TRY THIS:

VA-11 HALL-A
SUKEBAN GAMES, 2016
+ Cyberpunk bartending
− Tragic, not scary

SYSTEM SHOCK 2
IRRATIONAL GAMES, 1999
+ It's System Shock 2
− No System Shock 3

I HAVE NO MOUTH AND I MUST SCREAM
CYBERDREAMS, 1996
+ True cyberpunk horror
− Dated

VERDICT:
Before it resorts to some rather clichéd horror tropes, Observer is a gritty, oppressive cyberpunk nightmare.

7

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Battlestar Galactica: Deadlock

A sweet spot in space

DEVELOPER BLACK LAB GAMES
PUBLISHER SLITHERINE LTD.
PRICE $TBA
AVAILABLE AT STEAM
slitherine.com

I really love the idea of slow-paced, capital ship combat. I love Games Workshop's take on the genre, with Battlefleet Gothic, but only on the tabletop – the video game version left me cold. I love the books of military sci-fi writer David Weber, especially the Honor Harrington series, which is all space-broadsides and epic fleet actions – but the tabletop game is one of those systems that you almost need a math degree to understand.

Surely there's a sweet spot - one that doesn't need legions of fiddly, painted models, but that still has that slow-pacing that only a tabletop-style game can deliver.

That sweet spot exists, and it is called Battlestar Galactica: Deadlock.

Based around the gritty, almost real-world military feel of the recent reboot series, Deadlock puts you in command during the First Cylon War, when the great Battlestars are only just coming off their ships and into action – and, despite the name of the game, one of the first events of the game is the Galactica herself going missing. In the game, you play one of Fleet Admiral Cain's subordinates, and the whole thing is littered with little references to the television series.

And some not so little – the game's music is straight out of the Bear McCreary music book, and goes a long to establishing the epic feel of the series.

There's a lot going on in the campaign, and to be honest, it's the weakest part of the game – you've got to gather resources, build ships, unlock blueprints, move your fleet about, avoid Cylon fleets, and keep the government happy, all via a turn-based, strategic overlay. The only issue is, as much as the characters and voicework are solid and immersive, how you actually do a lot of this is a little up in the air. There's not much in the way of a tutorial, and before long all the training wheels are off - and I have to admit I felt more than a little at sea. Or, at space, I guess...

We call this "toaster repair"

> "lure you out to one point on the map and then sucker you from another direction"

WHY SHOULD I CARE?

+ You hate fracking toasters
+ Four seasons wasn't enough
+ You just want to yell DRADIS CONTACT all day

But while in many other games, that would be a huge problem – seriously, what am I meant to be doing with my giant floating base, because it is stupidly helpless and keeps getting destroyed! – it seems small-beer in Deadlock, because the turn-based ship combat is so damned tight.

The game is played in two-and-a-half dimensions – ships have limited turn circles and move rates, and once you decide where each ship is moving by clicking onto its projection and moving it about, you then get to determine heading and 'height'. In reality it's more like what terrestrial dog-fighting would be like, and that third dimension really only comes in when you want to move ships above and below the plane of other vessels - this is no Homeworld - but it looks good at least.

You can also command ships with special orders – you can get them to focus all their turret weapons on one ship, or just to shoot at targets in a particular arc. You can order them to launch missiles, which can really lay on the hurt, but to do that you first need to convert badguys from anonymous

SEQUENCE

THE FINE ART OF FLEET CONTROL

1. The hologram system always lets you know where your ships will end up

2. This lets you easily plan ahead...

3. ... unless you're not paying attention, and ram your own ships. Sigh.

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DRADIS contacts into identified ships before you can lock on. Missiles can take more than one turn to reach their target, too, and are limited in terms of supply. Picking the right moment to open up with a missile barrage is a real skill, and co-ordinating an entire fleet barrage can be a game-winning move.

The game wouldn't be complete without fighters, either, and both ships of a certain size and your giant lumbering base can launch entire squadrons. These can be set to attack a target, defend a friendly, or just patrol about – they're fast, so really useful for putting a name to those DRADIS contacts.

Damage is quite detailed in the game – you can't launch missiles or lock on if your fire control has been destroyed or compromised by hacking. You can set each ship to be either more or less defensive or offensive, which affects their effectiveness in different roles.

And the big Battlestars have their own unique ability – a giant disc of flak fire that can be deployed to either flank, which can block incoming munitions and defend against fighter attacks. But it's a bit indiscriminate, and really warns you when you've got your own birds in the air.

The special abilities are cool and flavoursome, but never seem over-powered, which is pretty impressive. What you need to rely upon instead of tricks are clever ship handling, clear target priorities, and… well, a bit of forethought. The game is quite happy to lure you out to one point on the map and then sucker you from another direction. If you're trailing around with your big base, that can be lethal – lose the base and it's game over.

And on top of all that, the game looks and sounds great, especially when you switch the UI off during the replay of each turn, and the replays of entire battles make even losing a thrilling spectacle. Deadlock is far from perfect, but it's still one of the most exciting space combat games we've seen in years. *DAVID HOLLINGWORTH* PC

SO SAY WE ALL

1. Click on a ship's hologram to move it around

2. Here you can see all the damage your ships are taking

3. Quickly focus all your guns on one target

4. Squadrons may look fiddly, but they're easy to control

5. Be careful about these unidentified contacts!

You can pre-program each ship to respond to threats in different ways - but it's not necessary

OR TRY THIS:

SINS OF A SOLAR EMPIRE: REBELLION
IRONCLAD GAMES, 201
- ⊕ Much grander in scope and scale
- ⊖ No Bear McCreary soundtrack

SWORD OF THE STARS: COMPLETE COLLECTION
KERBEROS PRODUCTIONS 2008
- ⊕ Oh so colourful!
- ⊖ No Bear McCreary soundtrack

ENDLESS SPACE 2
AMPLITUDE STUDIOS, 2016
- ⊕ Sentient trees - no shit
- ⊖ Okay, the sound track is good - but still no Bear

VERDICT:

Flawed but satisfying combination of epic turn-based tactical gameplay and incredible fidelity to the source material.

8

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Songbringer

We built this RPG on Roq and Rogue

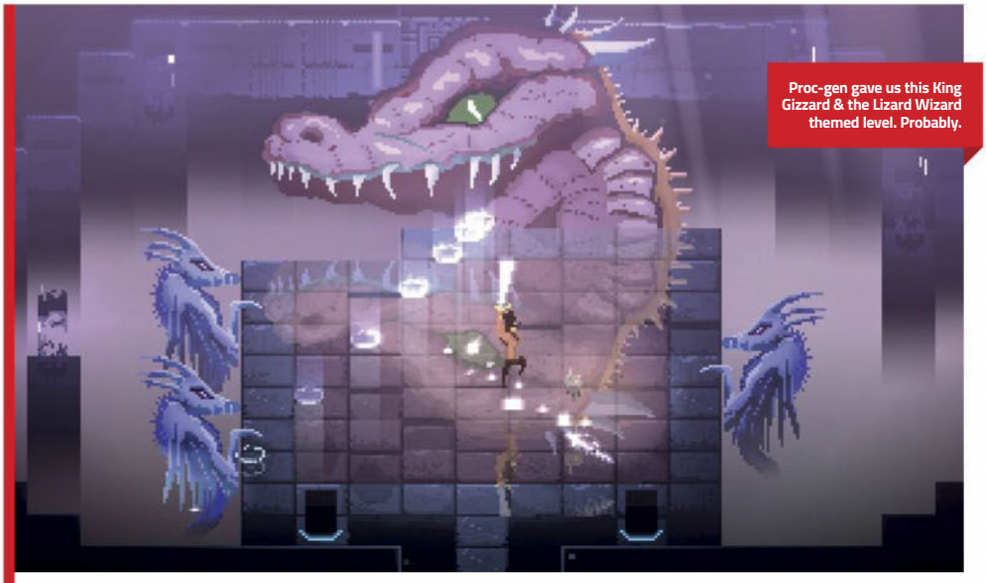
DEVELOPER WIZARD FU GAMES
PUBLISHER WIZARD FU GAMES
PRICE US$20
AVAILABLE AT STEAM, GOG, HUMBLE
songbringer.com

Within moments of starting the Rogue-like, Zelda inspired pixel exploration/RPG, Songbringer, Roq, the shirtless rockstar protagonist had already found two powerful weapons, the Nanosword, and a remote controlled boomerang top hat that could pick up distant items and bring them back to the hero. Oh, he'd also awakened an ancient evil hell-bent of doing some particularly not nice things to the people of the planet Ekzera. Then Roq went into a dungeon and was blown up by some traps. Within moments of starting a second run at Songbringer, Roq had found the Nanosword, awakened the evil and got himself killed fighting a room full of demons, traps and hovering drones while trying to get to an enticing looking chest. Before starting a third run of Songbringer I switched off permadeath. Then Roq found the sword, top hat and a charmingly low-fi world to explore.

The pixel graphics of Songbringer aren't the best we've seen, but even so they manage to evoke not just a retro sensibility but also a real incentive to explore. There are multiple biomes on Ekzera with swamps, plains, forests, deserts and more to explore on the overland and a number of natural caverns, sci-fi dungeons and other places to explore underground. Some of the dungeons are combat based, others are themed, others again are puzzle rather than combat based. What you get is up to the whims of the Rogue-like gods.

The simplistic art style makes these different areas look extremely disparate, so it's always fun to see what is changing from one screen to the next. The old fashioned flip-screen scrolling makes every new screen surprise. Will it be more desert? A new dungeon? A quest? A monument to a culture long dead? While the biomes look pleasantly different the layout of the screens often feels overly familiar thanks to the patterns used by procedural generation. As such, exploration lacks the impact that comes from carefully curated level design, but on the up-side there is way more replayability. There are something like 300 million possible permutations of Ekzera for Roq to make his way through. When creating a game, players input a word of up to six letters, this input is used as the generating force for the new world and can be used across platforms, ensuring that lore and progress remain constant.

As enjoyable as Songbringer is, there are still some issues that can get in the way of enjoyment. The Nanosword is a great weapon against a few foes, but it's not the most effective against groups due to the difficulty of judging angles on a 2D/3D plane. After you die for the umpteenth time due to not being able to accurately hit an enemy, it wears a little thin. The fact that enemies don't have health bars is also something of a pain because you're never sure you're having an effect until they die. Despite the niggles I'm hooked, and after the issue is done I'll head back to Ekzera for another journey into mystery. *DANIEL WILKS* PC



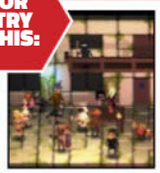
Proc-gen gave us this King Gizzard & the Lizard Wizard themed level. Probably.

> "they manage to evoke not just a retro sensibility but also a real incentive to explore"

WHY SHOULD I CARE?

+ You want a boomerang top hat
+ You think shirts are for squares
+ You like your world random

OR TRY THIS:



LEGEND OF DUNGEON
ROBOT LOVES KITTY, 2013
- Rogue-like dungeon beat-em-up
- No overland

CRYPT OF THE NECRODANCER
BRACE YOURSELF GAMES, 2015
- Musical dungeon Rogue-like
- No boomerang top hat

DUNGEON OF THE ENDLESS
AMPLITUDE STUDIOS, 2014
- Challenging dungeon Rogue-like
- Shirt

VERDICT:
Though not without problems, Songbringer is a charming, challenging and addictive old fashioned ARPG.

8

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Huge Power, Tiny Package

CHRONOS
BY ORIGIN PC

"Origin's Chronos Gaming PC, without a doubt, tops our charts in regards to performance and takes the crown even at half the size as the other contenders."

Steven Bassiri, TweakTown Editor

Configure Yours Online today - originpc.com.au

TEAM ORIGIN PC

intel inside CORE i7

NVIDIA GEFORCE GTX

VR READY

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DVD Contents

I have had DOTA 2 on my 'I would TOTALLY love to put this on a disk for people' list for years now. It's an awesome game, in dire need of a fresh influx of non-jaded and vaguely human beings to dilute what is in danger of becoming a very n00b unfriendly place. The problem is that it's FREAKING huge. Twelve whole giganasties of download cap. And as much as I jump up and down on each nibble (yes, that really is a quantity - it's half a byte), I can't squeeze that much onto a disk.

So! To get around the problem, I have broken the game up into chunks. And the first and second of those itty-bitty sized chunks are on this very disk! Parts three and four will be lovingly crafted into next month's disk for you to enjoy.

Chaos Lady

20 FREE GAMES, DEMOS & UTILS!

- b_
- Book Of Potentia 2
- Chroma Blast
- Destiny of a Wizard Demo
- Dota 2 (Parts 1 & 2 of four)
- Endless Sky
- Fingerbones
- Loading Screen Simulator
- Lost Items
- Missing Translation
- Naev
- Never Again Demo
- OLDTV
- Onirim - Solitaire Card Game
- Relic Hunters Zero
- Solarium
- The Old Tree
- The Plan

Endless Sky

OLDTV

- The Secret of Tremendous Corporation
- Ziggurat 3D Chess

DOTA 2

Installation instructions included on the disc. Browse the disc and launch **index.html** for more.

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Simply click the install/download link under a file's description to launch the installation program. please ensure that all other programs are closed and that any anti-virus software is disabled before performing a software installation. Due to STEAM region locking, not all content may be available toutside Australia.

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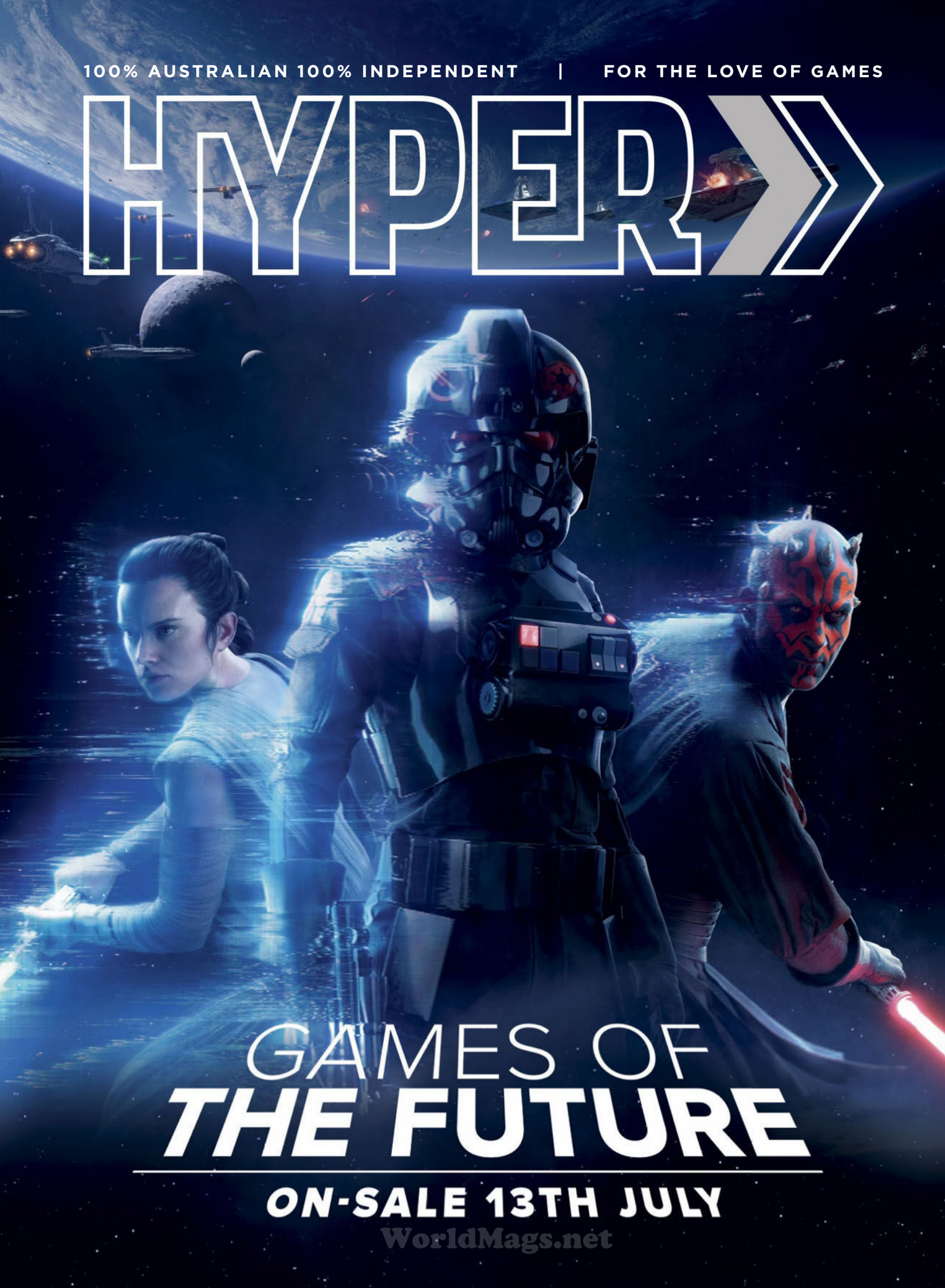

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Lawbreakers

Not British Steel

DEVELOPER BOSS KEY STUDIOS
PUBLISHER NEXON AMERICA INC.
PRICE $29.99
AVAILABLE AT STEAM
lawbreakers.nexon.net

Kudos to Cliffy B and Boss Key Studios for trying to do something different with the competitive shooter. Lawbreakers adds a genuine sense of three dimensionality that is lacking in most competitive FPS through something the developers call "The Shattering". A global catastrophe, the Shattering sundered the land with seismic events so great they lead to gravitational anomalies dotted around the planet. In gameplay terms this means that maps have areas of zero or reduced gravity, and the nine playable classes (each class has two character options) all have their own way of navigating the maps, from triple jumps to jetpacks, wall-running, teleportation, speed boosts and more.

Getting around the maps is great fun. The movement and verticality of the maps is a joy to play around in, both in terms of movement and gunplay. Nailing a perfect shot while flying through the air is great, as is nailing an enemy flying through the air. Learning to track players while moving in three dimensions is one of the most, if not the most vital skill in Lawbreakers, and once you have the hang of it, the core gameplay loop of movement and tracking movement is wonderfully realised. Unfortunately much of the rest of the game is fundamentally flawed to the extent that the core gameplay becomes, if not overshadowed, then at least somewhat obscured.

Lawbreakers features five game modes playable across each one of its maps. The game modes themselves are great riffs on established modes like Capture the Flag and King of the Hill, but the fact that each of the maps has been designed to accommodate them all renders them either rather dull or unbalanced as the needs of each mode differ. Some maps fare better than others, but given that there doesn't appear to be a way to choose a game mode to queue for, it really does appear to be a crapshoot as to what you'll find yourself playing.

Step outside the generic shooter arena for some fresh air.

> "designs look as though they could be from any Korean MMO released in the last ten years"

The characters also leave more than a little something to be desired. While the core mechanics of the different classes are nicely varied, the actual designs look as though they could be from any Korean MMO released in the last ten years, and the names, with a few exceptions aren't really indicative of a character's role in the game. There is almost no lore, so there is nothing in terms of context either. You can test out the characters in a sandbox mode, but given that the only targets in it are both passive and invulnerable it's not particularly educational if you're looking to try out different weapons to see their accuracy and damage.

With some new maps dedicated to game modes as well as a proper AI sandbox for training, Lawbreakers can be a great competitive shooter. As it stands, mechanically the game is already excellent, but it's those fine details that need to be tweaked. Luckily, there doesn't seem to be much problem finding a game, so it's not much of a stretch to think that we'll be seeing some balance patching, map tweaks and new content in the not too distant future. *TAVISH FORREST* PC

WHY SHOULD I CARE?

+ You think everyone should look like a Korean cyborg
+ You think every place you visit is good for everything
+ You don't need no stinking context

OR TRY THIS:

OVERWATCH
BLIZZARD, 2016
+ The hero shooter
− Genji

PLAYER-UNKNOWN'S BATTLEGROUNDS
BLUEHOLE INC., 2017
+ Buggy, insane, amazing
− Eats all your time

CS: GO
VALVE, 2012
+ Supremely balanced
− Dull gravity

VERDICT:
Excellent core mechanics are hindered by generic maps and nothing characters

7

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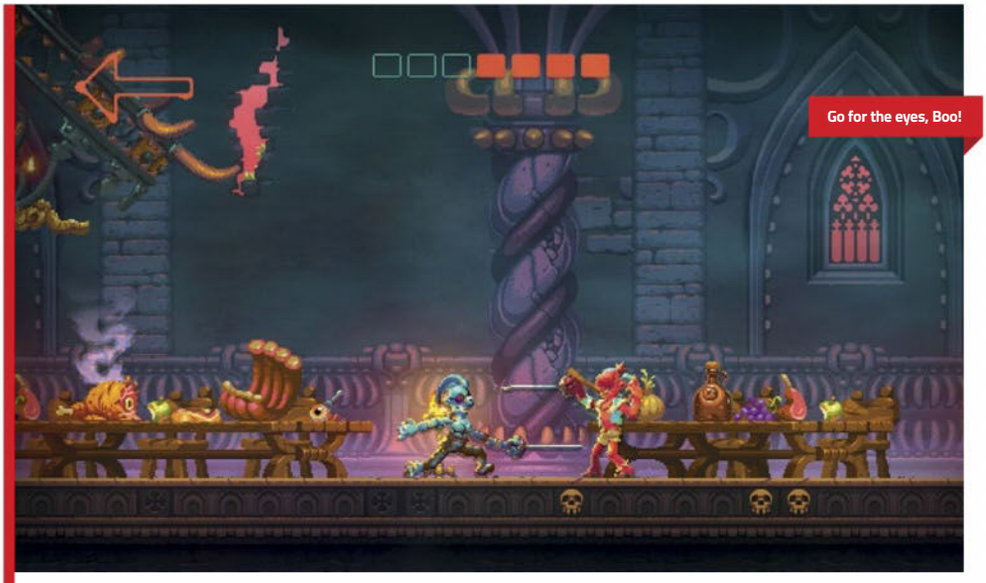
Nidhogg II

Tug of warts and all

DEVELOPER MESSHOF
PUBLISHER MESSHOF
PRICE $14.99
AVAILABLE AT STEAM, HUMBLE
nidhogggame.com

Nidhogg is a game that could almost typify the term "pared-back". The original game stripped away anything that got in the way of the core concept of two player duelling. Attacks were about positioning for a quick stab rather than spectacular swinging, and the sprites were simplified to the point of being little more than stick men. The game essentially took the concept of tug of war and added jousting without horses. It was brilliant upon release and is still fantastic. Nidhogg II is a different beast entirely. The stick men have become charmingly grotesque creatures and the original rapier is now but one of the weapons available to use. Nidhogg II takes the concept used in Nidhogg in a different direction and is all the better for it.

The core gameplay loop of Nidhogg remains – two players face off against each other and battle to kill the other so as to come into possession of the arrow that allows them to run towards their eventual goal of being eaten by the giant Nidhogg. While the original game only had the rapier as a weapon, Nidhogg II adds some variety to the mix with four weapons, one of which is randomly assigned to a player when they are spawned. The rapier works in much the same way it did in the original game, having three positions (high, middle, and low) for attack and defence. The broadsword limits manoeuvrability, giving only two position for an attack (high and low), but the powerful swings of the broadsword can disarm enemies easily. The dagger is very fast when it comes to stabbing but has such a short range that it's easy to accidentally impale yourself on your enemy's weapon. The dagger is balanced for throwing as well. Finally, the bow allows players to shoot arrows at range, but these arrows fly relatively slowly and can be parried or even redirected with melee weapons. What weapon you spawn with has a huge impact on how you approach the game, as what works with one is all but an automatic death sentence with another.



Go for the eyes, Boo!

> "what weapon you spawn with has a huge impact on how you approach the game"

WHY SHOULD I CARE?

+ You believe an armed society is a polite society
+ You think tug of war needs more bladed weapons
+ You like your characters to look like deformed Claymation

In addition to weapons, each player can also make dive- and slide-kicks to knock down the opponent for a brutal hand-to-hand finisher. Rather disappointingly the vicious neck snap of Nidhogg has been replaced with a gooey stomp that ups the grotesque but doesn't feel or sound anywhere near as nasty.

The brightly coloured characters are just part of the vibrant new world of Nidhogg II. Players can choose from a number of themed stages that not only look great but present players with themed obstacles to overcome in the form of moving platforms, unstable surfaces, obscuring foliage and the like. After the austere simplicity of the original game, the candy coloured grotesques of the sequel, despite being more advanced in terms of detail and animations, can feel like something of a step back. Provided you can acclimate to the new look, Nidhogg II delivers some of the most frantic and fun local multiplayer you can have.

DANIEL WILKS PC

OR TRY THIS:

SWORDY
FROGSHARK, 2016
+ Momentum based combat
− Early Access

STARWHAL
BREAKFALL, 2014
+ Narwhal jousting
− Narwhal horns are gross

DIVEKICK
IRON GALAXY STUDIOS, 2013
+ Two button fighting!
− Better than SFV

VERDICT:
Uglier than the original but simultaneously more nuanced and frantic.

8

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Tech 266

YOUR GUIDE TO PC GAMING HARDWARE

Begun the Market Wars have

Something else Yoda sounding *(Fired, you are - Ed.)*

I have never been so inundated with new CPU and GPU architectures in my life. AMD has thrown a hand grenade into both the CPU and GPU market with its Ryzen, Threadripper and now Radeon RX Vega. My god, I swear my hands have half become silicon thanks to the amount of benchmarking I've had to do in the last few months; it's simply unheard of to see so many brand new architectures in such a short time.

And what a breath of fresh air it's been. Now that AMD is taking on – and beating in many regards – Intel, we can expect to see new CPU designs from the big Blue way before expected. Its new 8th Gen Core CPU was initially only promising 15% better IPC per core – now they're claiming 30%. See what a little competition can do? On the other hand, while the new Radeon mightn't be quite as amazing as anticipated, it's still lit a fire under Nvidia's buttocks, so we can expect their response sooner than past roadmaps have suggested.

And the winner in all of this is you – with real competition comes cheaper prices, better performance and new features. I'm very keen to start taking a deeper look at DX12 in the near future, as all of these new products rely heavily upon its features, such as multi-core support. Until then though, be ready for the influx of new products to continue. Meanwhile, over my testbench, hovering I'll be...

Bennett Ring
Tech Editor

PC PowerPlay POWER AWARD

Our Power Award is given to products that are best in class no matter your budget.

PC PowerPlay SMART BUY

Our Smart Buy Award goes to products that balance performance with price tag.

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84 Omen 1100 & 600
85 Corsair T1 Race chair
85 HyperX Alloy Elite

THE PCPP TESTBENCH

CPU
INTEL I7 3770K
intel.com.au

MOBO
GIGABYTE Z77X-UD3H
gigabyte.com.au

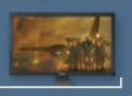
SSD
CORSAIR NEUTRON
corsair.com

RAM
8GB PATRIOT DDR3 2,133MHz
patriotmemory.com

GPU
RADEON HD 7970
amd.com

PSU
CORSAIR AX860I
corsair.com

DISPLAY
DELL U2711
www.dell.com.au



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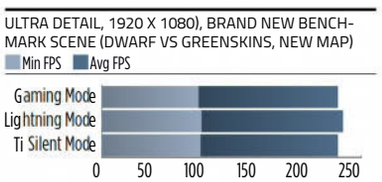
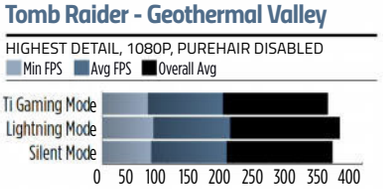
Benchmarks

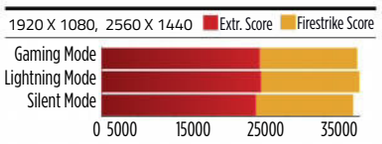
Total War: Warhammer


ULTRA DETAIL, 1920 X 1080), BRAND NEW BENCH-MARK SCENE (DWARF VS GREENSKINS, NEW MAP)
Min FPS
Avg FPS
Gaming Mode
Lightning Mode
Ti Silent Mode
0 50 100 150 200 250

Tomb Raider - Geothermal Valley



3DMark Fire Strike & Extreme



GPU

MSI GeForce GTX 1080 Ti Lightning Z

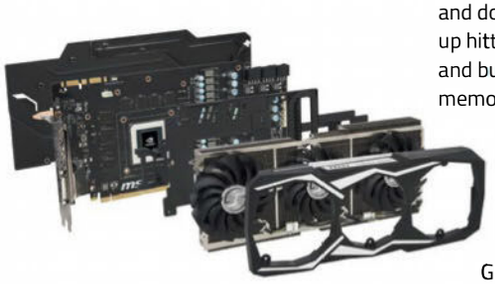
The cream of the 1080 Ti Crop

PRICE $1499
www.msi.com.au

If you're a professional overclocker, there's one specific video card that seems to be the favourite that they all turn to. MSI's Lightning series is so heavily over-engineered that it can take a smashing from LN2 abuse, and has won many world records in the past. The moment these guys are all waiting for has finally arrived – the GeForce GTX 1080 Ti version of the Lightning Z.

This is one gigantic graphics card, taking up three slots. This provides plenty of room for two glowing RGB strips, and comes with a special reinforcement bracket to ensure it doesn't warp your motherboard. The Tri-Frozr cooler uses triple Torx 2.0 fans, and to our amazement this card remains very quiet, even when overclocked. The loudest it hit was a mere 43dB of fan noise, which is simply phenomenal for a card clocked like this.

When you spot the triple 8-pin power plugs, it's obvious that MSI has done some serious beefing up of the power supply. This card uses 14 of the industry's highest rated DrMOS power phases as part of its 'Enhanced Power Design', and it also has Pure Digital PWM Control to deliver extremely fine control and monitoring of power delivery to specific key components. There's an LN2 switch for serious overclockers, but even noobies will be able to get the most out of it. Using the MSI Gaming App, it's possible to set the card to three modes. The default GeForce GTX 1080 Ti runs at a base speed of 1481MHz, while the Boost speed is 1582MHz. Meanwhile the default memory speed is 11Gbps. Now, onto the one-click options available via the MSI Gaming



App. Slowest is the silent mode, which runs with a base of 1480 MHz and a Boost of 1582 MHz – basically identical to the default card. Next up is gaming mode, which has a base speed of 1582 MHz and a Boost speed of 1695 MHz. Finally there's the OC mode, which has a base speed of 1607MHz and a Boost speed of 1721 MHz. That's quite a healthy factory overclock right there. Meanwhile the memory speed boosts to 11124MHz in both Gaming and OC mode. But we wanted to go one further, and do a manual overclock. We ended up hitting 2030MHz under Boost mode, and but only hit 11124MHz in the memory mode.

> "the loudest it hit was a mere 43dB of fan noise, which is simply phenomenal for a card clocked like this"

Does the average gamer need to spend 50% more on this GTX 1080 Ti than generic versions of this chipset? Hell no. But if you want to be the world's fastest GPU overclocker, this is the card for you. *BENNETT RING* PC

+
- Incredible power supply
- Very quiet cooling
- Top quality components throughout

-
- 50% more expensive than a default GTX 1080 Ti

VERDICT:

Normal gamers can forget this card – it's aimed directly as the super high-end overclockers, and we're sure to see it take out many awards later this year.

PC PowerPlay POWER AWARD

9

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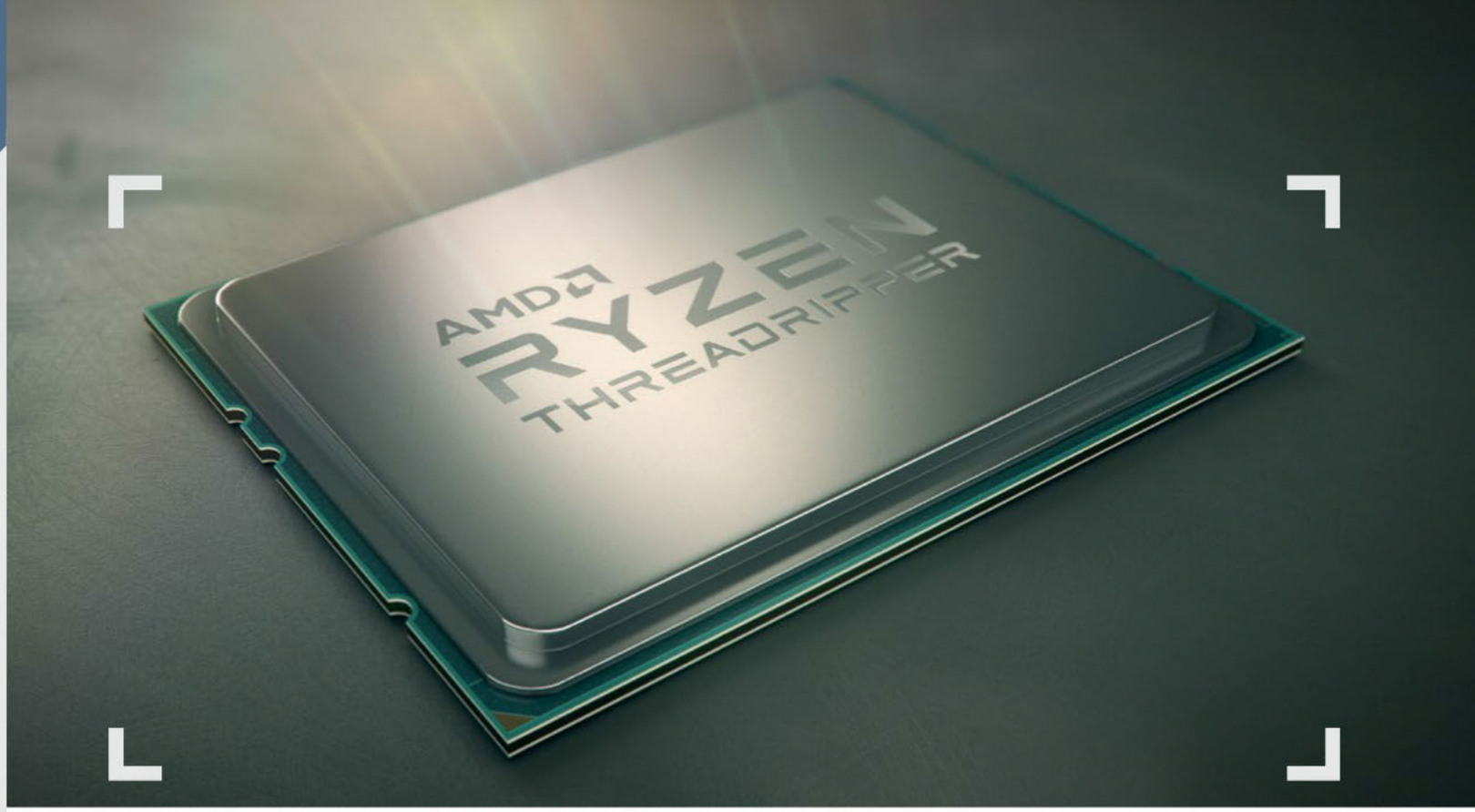

CPU

AMD Ryzen Threadripper

AMD drops mega-threads on the desktop

PRICE $1440 FOR 1950X; $1149 FOR 1920X
www.amd.com

Just when we thought things couldn't get any more exciting in the CPU world, along comes AMD with another bombshell. With quite possibly the coolest product name ever, the Threadripper series of CPUs takes core-counts to the next level, offering Enterprise-level performance at consumer priced dollars. But is it any good for gaming, given that its main strength is how many cores it has? We all know that the Ryzen 7 wasn't particularly great when it came to game performance, so can Threadripper reverse that trend? Let's find out.

WHAT'S ON THE INSIDE

Threadripper CPUs are truly huge. Each chip is 569 x 638 x 272mm, and comes in a special orange plastic mounting plate. This then slides into the new TR4 socket that comes with compatible X399 motherboards, and AMD has gone for a radical redesign of its CPU packaging. Rather than the pins being mounted on the CPU as we're used to with prior AMD chips, known as a pin grid array, AMD has switched to the same method as Intel, where the pins are inside the CPU socket, all 4094 of them in fact. This is known as a land grid array design, which is much less prone to bent pins than PGA.

Mounting the CPU is an interesting twist on prior chips. Once mounted inside its plastic sheath, it then slides into the TR4 socket's swinging arm, which is then locked into place using a special screwdriver supplied by AMD. Thanks to the new socket design, most existing coolers won't work with the TR4 socket, but AMD has kindly supplied an adaptor to get around this issue. However, this doesn't work with all coolers, so check first – most cooler suppliers are offering TR4 upgrade kits for free or under $20. By the way, there's no cooler included with these CPUs, so you'll need to fork out for one of your own. AMD supplied us with the Thermaltake AIO Floe Riing TT Premium Edition, which has a whopping 360mm radiator, but whose water block only covers around half of the CPU. Despite this, temperatures reached just 58C during our Prime95 testing.

CORE COUNT AND BASE SPECS

Despite all those cores, the 1950X and 1920X only output 180W of TDP. Speaking of cores, the 1950X has a whopping 16 cores, while the 1920X drops this slightly to 12. Each of these cores is equipped with AMD's new simultaneous multithreading (SMT), which operates similarly to Intel's hyperthreading, which means each core delivers two threads of performance. This means the 1950X can handle a crazy 32 threads, while the 1920X can handle 24.

▲ **TR4 sockets should mean fewer bent pins.**

When it comes to speeds, the 1950X has a Base speed of 3.4GHz which Boosts up to 4GHz under load. The 1920X is actually even faster clocked, with a Base speed of 3.5GH and Boost

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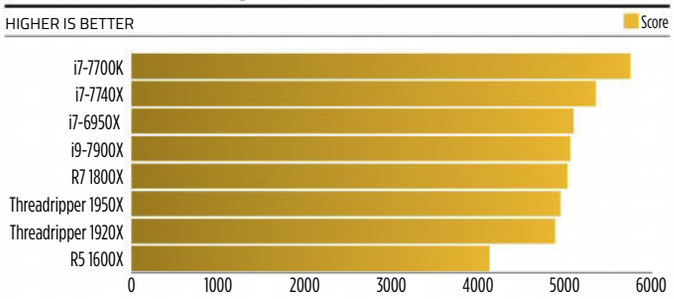
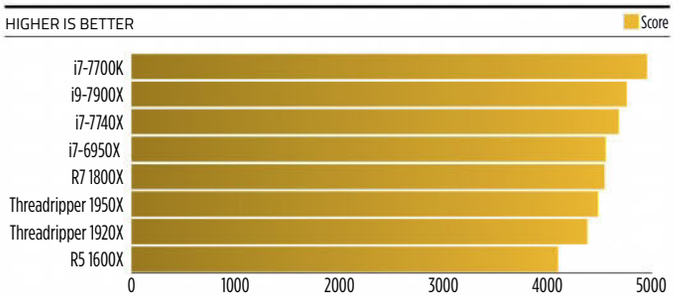
Threadripper 1920X & 1950X benchmarks

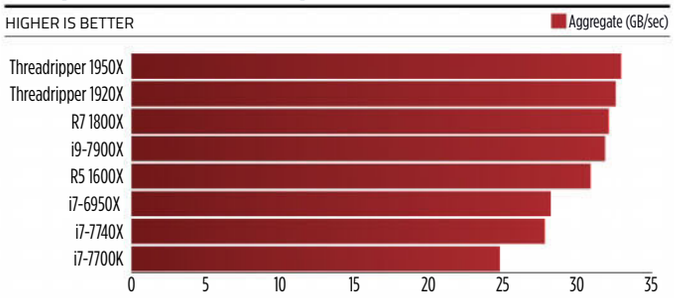
PCMark 8 Home Open CL Accelerated



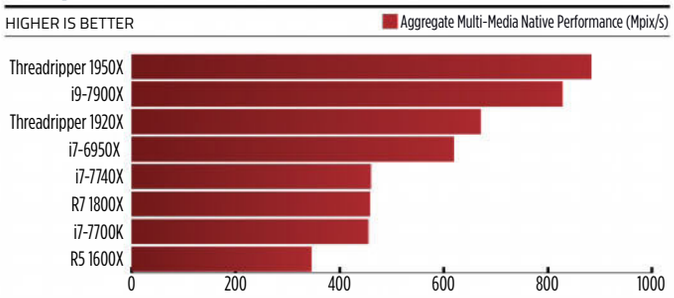
PCMark 8 Home Non-accelerated Conventional



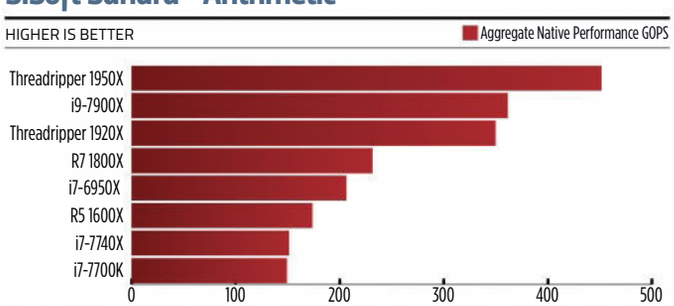
SiSoft Sandra - Memory Bandwidth



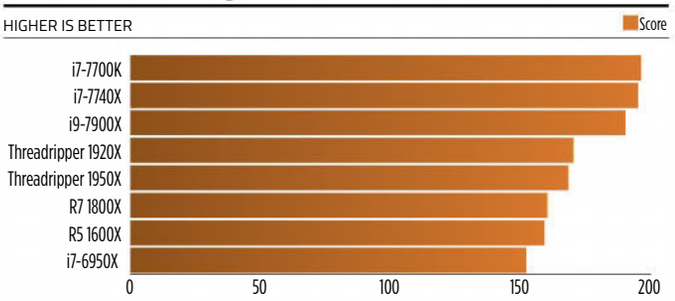
SiSoft Sandra - Multimedia



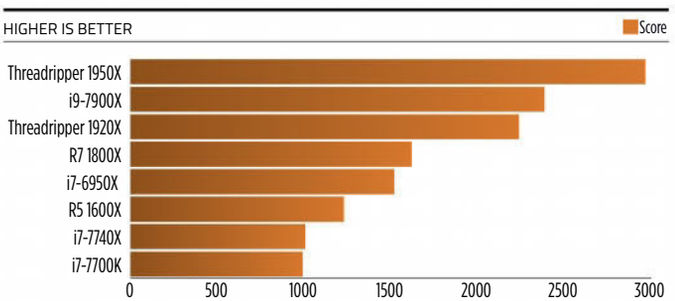
SiSoft Sandra - Arithmetic



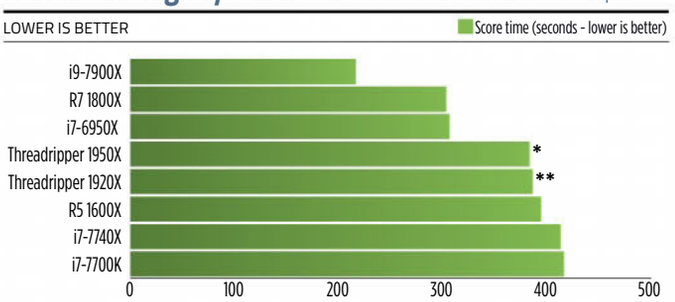
Cinebench CPU Single Thread



Cinebench CPU Multi Thread

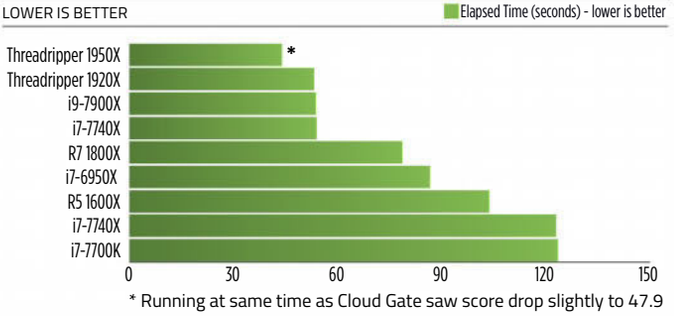


HandBrake nightly build: 1.1GB 4K Video to Matroska H.265 MKV 720p30



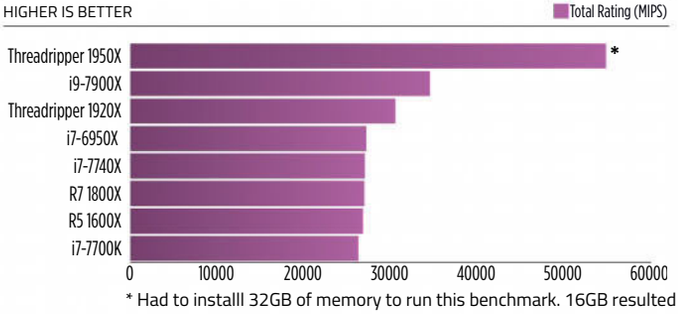
* Only ran at 3691MHz according to CPU-Z
** Tried 3 different versions of Handbrake

POV-Ray - Benchmark scene



* Running at same time as Cloud Gate saw score drop slightly to 47.9

7-Zip Multithreaded file compression 92MB Dictionary Size



* Had to installl 32GB of memory to run this benchmark. 16GB resulted in an error saying not enough memory, so this result is questionable.

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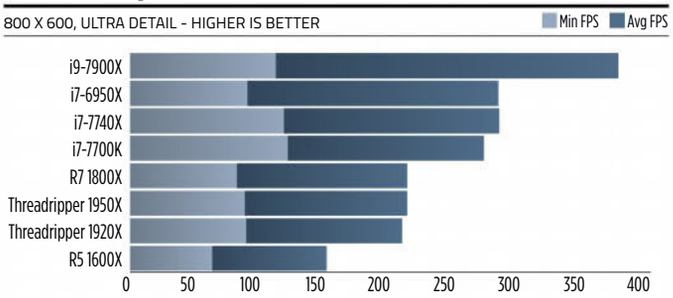
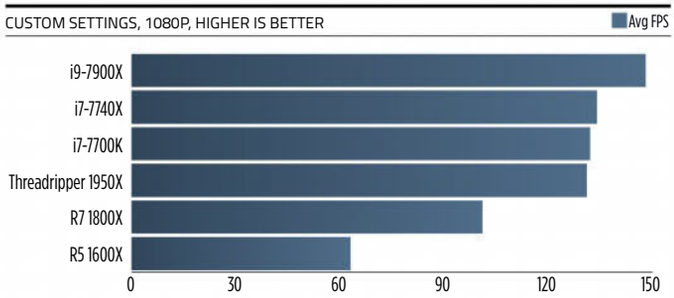
Threadripper 1920X & 1950X Game benchmarks

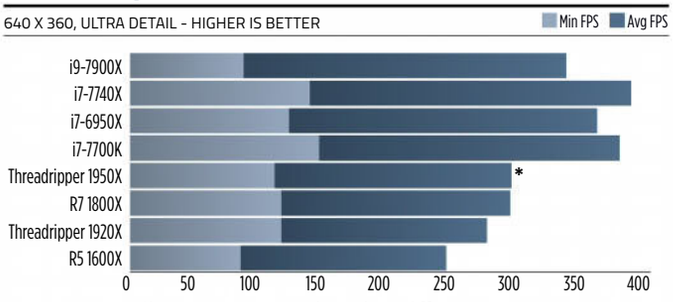
Grid Autosport



Total War: Warhammer

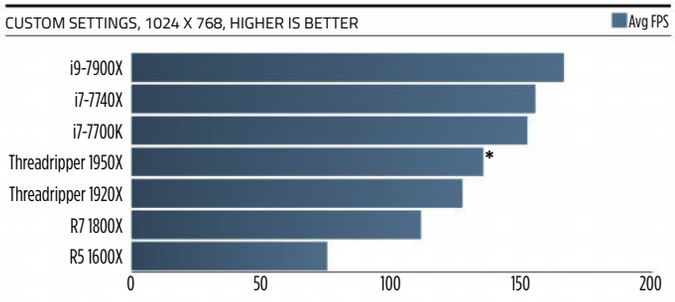


Shadow of Mordor



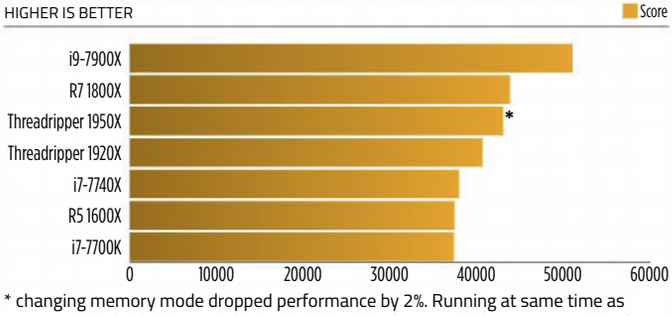
* Changing memory mode made no difference - retesting in both modes made no difference.

Total War: Warhammer



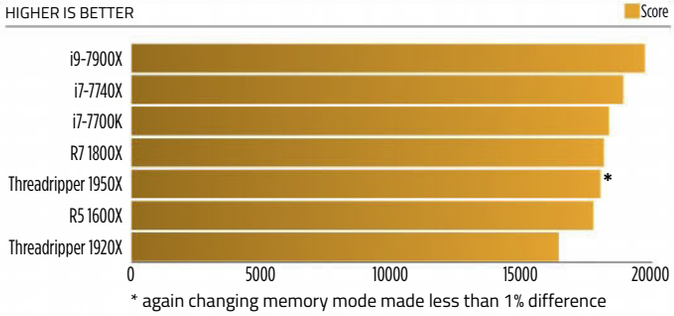
* 39 with 7-zip running

3DMark Cloud Gate



* changing memory mode dropped performance by 2%. Running at same time as POV-RAY resulted in a 3DMark Cloud Gate score of 42268 and POV-RAY score of 47.9

3DMark Fire Strike



* again changing memory mode made less than 1% difference

of 4GHz. There's a catch though – they'll both only hit 4GHz when four cores are active. Both chips also come with the same XFR technology of Ryzen, which can add another 200MHz under the perfect thermal conditions.

Threadripper uses the same Zen architecture of the Ryzen chips – it just delivers more of them. There are also a couple of minor changes to connect all those cores. Each core gets 512K of L2 cache, with another 16MB of L3 cache per die (each die has eight cores)

One huge benefit of Threadripper and the accompanying X399 chipset is the incredible number of PCIe lanes it brings to the table. In the past AMD has really lagged behind Intel in this regard, but Threadripper totally changes this, delivering 64 PCIe Gen 3.0 lanes, though four of those lanes are reserved for the X399 chipset. This means there's plenty of room for added drives, extra GPUs and the like, perfect for professional workstation owners this chip is aimed at.

The X399 chipset also brings quad-channel memory support to the table, with a speed of DDR4-2666MHz. Even better, it has full ECC support, which is crucial for those who simply can't allow their data sets to be misread from memory. On Intel's side, if you want ECC support, you have to buy a rather expensive Xeon CPU. AMD states that Threadripper can handle up to 1TB of system memory, but there's a catch – they must be UDIMMs, which currently max out at 16GB.

One interesting nugget about the memory is that it can be run in two modes, selectable via AMD's desktop software. There's the distributed mode, for day to day productivity apps, and then the Local mode. This switches the system into NUMA (Non-Uniform Memory Access) mode, which is apparently better for programs that have more predictable memory access. We found that changing between the two made very little difference, with a 2% drop in 3DMark's Cloud Gate benchmark.

DELIDDING THE BEAST

If you were to remove the lid of the CPU, you'd be rather surprised at what you find. Threadripper 1950X uses two Core Complexes (CCX), each of which is equipped with eight cores. Yet there's another two silicon dies included,

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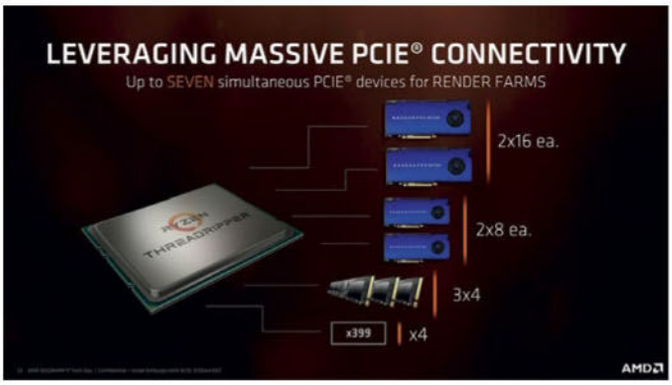
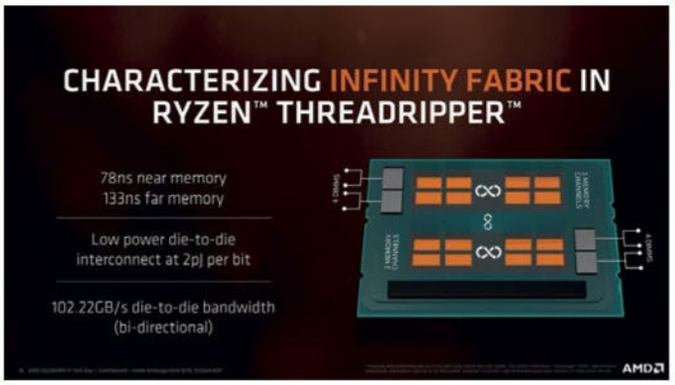


▲ **With 64 lanes there's loads of room for added drives, extra GPUs and the like.**


CHARACTERIZING INFINITY FABRIC IN RYZEN™ THREADRIPPER™
78ns near memory
133ns far memory
Low power die-to-die interconnect at 2pJ per bit
102.22GB/s die-to-die bandwidth (bi-directional)
AMD

▲ **Infinity Fabric is some of our favourite marketing hyperbole in recent times.**

but they're non-functioning. AMD has included these to better balance heat load and heatsinks; they don't actually do anything. However, it does suggest that AMD could include another two CCX for a 32-cored beast in future.

The two functional CCX units use 'Infinity Fabric' to communicate with each other, which offers 102GB/sec die-to-die bandwidth. The entire CPU is built using a 14nM FinFET manufacturing process, but AMD has stayed mum about the total number of transistors used within.

TESTING THE RIPPER

Unlike Ryzen, Threadripper was a million times easier to test. We didn't have to wade through a host of options to set the system up correctly, and the memory we used worked perfectly, first time, every time. All we had to do was update the motherboard BIOS and away we went. While AMD supplied us with basically everything needed for a new PC build, including an M.2 drive, 32GB of memory, and a 1250W PSU, we used the exact same components as our prior Core-X testing to ensure our results were comparable. The only change was the cooler used, as our H105 didn't have the right mounting clip, and the PSU, as the X399 board requires two 4-pin connectors, a feature our Corsair 850W PSU doesn't have.

> if you want to run multiple apps while gaming, Threadripper can do the job handily

As you can see from the productivity results, Threadripper is a winner. It may have a slower IPC count per core than Intel, but when you feed massively multithreaded software through it, it takes the lead in most of the tests. We were a little surprised at the Handbrake results though; AMD's data shows that Threadripper takes the lead, while it lost out by a long way here. This is likely because we use a different video container than the one AMD used for testing, which is accelerated by Intel's Media Engine. We tried three different versions of Handbrake to ensure the issue wasn't on our end, but the result remained the same every time.

When it came to game performance, Threadripper is the mirror-image of Ryzen. It's weaker IPC per core performance means that these lesser threaded applications are beaten out by Intel's products. Most games only use four cores at most, which is why Threadripper did so badly. However, if you want to run multiple apps while gaming, Threadripper can do the job handily. We ran both the 3DMark Cloud Gate test at the same time as the POV-RAY test, and found only a small increase in the POV-RAY result. On the other hand, when we tried to run Ghost Recon and 3DMark at the same time, the system slowed to a crawl. We're guessing this is a limitation of the 16GB of memory we used for testing. If you're going to buy a Threadripper, we suggest loading it up with at least 32GB of memory.

CONCLUSION

As it's based on the Zen architecture, we weren't particularly surprised by the gaming results. However, the productivity results show that AMD has a real winner on its hands for those who need as many threads as possible, such as content creators, Twitch streamers and scientific loads.

▲ **These don't do anything except help balance heat load.**

Once again AMD has socked it to Intel, this time at the super high end of the market. At $1440 for the 1950X, it handily beats out Intel's Core i9-7900X. Without Threadripper, there's no way in hell Intel would be selling the i9-7900X at such a cheap price; just look at its prior pricing to see what they expected consumers to pay, with ten core chips in the $2000 region. With the added benefit of ECC memory support and a huge amount of PCIe 3.0 lanes, AMD has regained the lead in the super high speed end of the CPU world, and we couldn't be happier. PC

+
- Amazing multithreaded performance
- Not bad power usage

-
- Not great at gaming
- Requires a separate cooler

VERDICT:

AMD has done it once again, showing Intel that it can compete at all levels of the CPU market.

PC PowerPlay POWER AWARD **9**

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GPU

AMD Radeon RX Vega 64

Can AMD win two wars at once

PRICE $899 ($699 SOON APPARENTLY)
www.amd.com

If there's any doubt that AMD has guts, 2017 has certainly put that out to pasture. Striking a major win against Intel with its Ryzen and now Threadripper CPUs, that's not enough for the team in red. Now they're taking on the might of Nvidia, but rather than stick to the budget and mid-range sector, they're aiming high, taking on the best that Nvidia has got. Considering AMD is a fraction of the size of both Intel and Nvidia, does it have what it takes to win on two fronts at once?

THE BIGGEST UPGRADE IN 6 YEARS

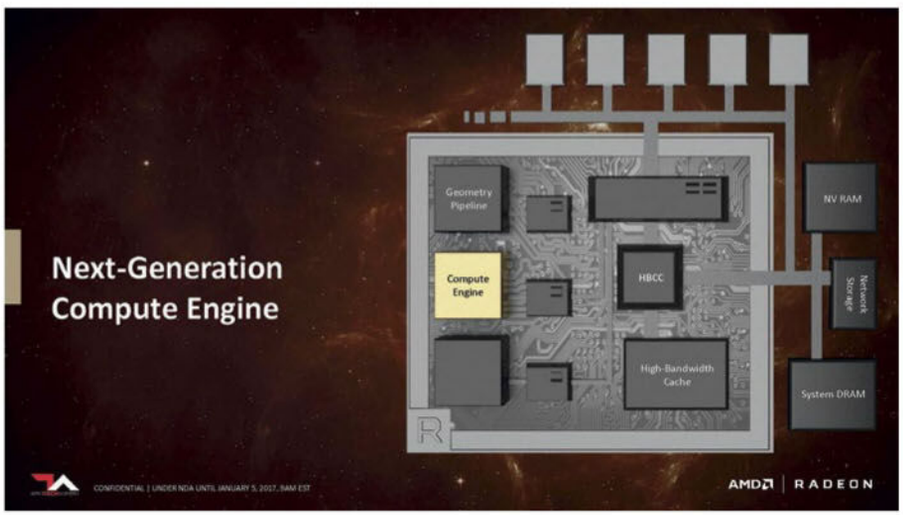
Ever since 2011, AMD has been using its Graphics Core Next architecture for its GPUs. In that time it's made five revisions to the technology, leaving us with the current version of GCN 1.5, aka Vega. According to AMD, this is the first major new GPU design from AMD since the release of GCN. The company has been talking about the new RX Vega design since last year, with initial promises of GeForce GTX 1080 Ti-beating performance. It's no wonder gamers have been waiting eagerly for the arrival of the final product, and now it's here. Before we look at the performance AMD has managed to deliver, let's take a deep dive on what makes the RX Vega design tick.

FLIPPING THE LID ON VEGA RX

AMD is actually launching three versions of the RX Vega. At the top of the range is the Radeon RX Vega 64 Liquid edition, which is currently retailing in Australia for $1049, putting it on par with the GeForce GTX 1080 Ti. The card we received is the middle of the stack, the Radeon RX Vega 64 air-cooled edition, which is hitting shelves for $899 at the moment. AMD promises this price will drop to $699 in the very near future; it's just that the first shipment has sold like hotcakes. At this price, it's facing off against the GeForce GTX 1080. Finally we have the slightly cut-back Radeon RX Vega 56, which isn't currently on sale in Australia. Expect it to face off against Nvidia's GeForce GTX 1060 though.

So, how does each of the three differ? Well, in terms of design, both the liquid-cooled and air-cooled RX are identical. They each ship with 4096 Stream Processors, organised into 64 Compute Units. They also share 256 Texture Units, while the number of ROPs is identical at 64. The RX Vega 56 gets a few cut-backs to lower its price. It drops the number of Stream processors to 3584, arranged into 56 Compute Units, while the Texture Units drop slightly to

▼The RX Vega 64 has 64 compute units while the RX Vega 56 has, yep, 56 compute units.



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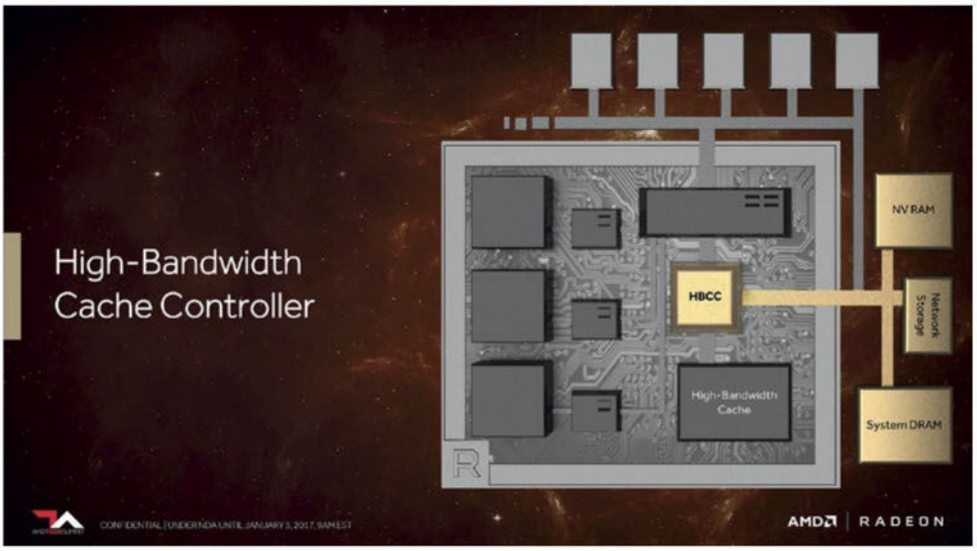
224. Yet it still has the full 64 ROPs of the other two cards.

All three cards use 8GB of HBM 2.0 memory, but the RX Vega 56 lowers the speed to 1.6Gbps, down from 1.89Gbps on the other cards. One of the massive benefits of HBM 2.0 is the incredibly wide bus width that it offers, and all three cards use a huge 2048-bit bus. Each card is made from 12.5 Billion 14nm FinFET transistors.

The major difference between both RX Vega 64 cards is the frequency and TDP. The Liquid Cooled version runs at a base clock of 1406MHz, which Boosts to 1677MHz, while the Air-cooled version lowers the base to 1247MHz and the Boost to 1546MHz. Meanwhile the RX Vega 56 is slower still, with a base of 1156MHz and a Boost of 1471MHz. Now, all those transistors need some serious energy, and in this regard the RX Vega is a disappointment. The liquid-cooled RX Vega 64 requires a whopping 345W to power the board, while the air-cooled version is only slightly less at 295W. Even the RX Vega 56 requires 210W. These are extremely high compared to the 180W or so that Nvidia requires for its high-end products, and will likely mean you'll need to upgrade that 750W PSU of yours, ensuring you're got plenty of headspace for your other goodies. Obviously twin 8-pin plugs are found on both of the RX Vega 64 cards, and above these are eight small LEDs that light up to show the load the card is under. We haven't seen the 56 yet, so can't be sure of how many power plugs it will require. AMD isn't really talking up CrossFire, though the cards are CrossFire compatible. Unlike Nvidia, the Radeon RX Vega series doesn't require a hardware bridge, instead communicating over the PCIe 3.0 lanes.



THE BIG CHANGES IN GCN 1.5

So we know that AMD claims this GPU architecture has the most radical redesign in six years, but what are they? There's a handful of key technologies that GCN 1.5 introduces, starting with the Next Generation Compute Units, or NCU for short. Without getting too tech heavy, this allows for a pair of FP16 instructions per FP32 ALU, doubling the number of instructions if they're identical. It offers 512 Operations on 8-bits per clock, 256 for 16-bits and 128 for 32-bits. Each NCU is organised into a batch of 64 NCUs, which it calls a Compute Unit. They've also doubled the L2 cache available in total to the GPU,

Next up is the part designed to handle all that memory – the High Bandwidth Cache Controller, or HBCC. This allows the GPU to access external system memory at a much faster rate than before, with support for data sets of up to 512TB in size. Remember that the card only has 8GB of memory, so being able to access that system

> "will likely mean you'll need to upgrade that 750W power supply unit of yours"

▼ The liquid cooled version requires an insane amount of power.

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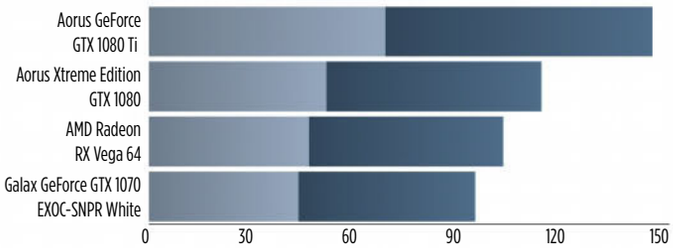
Vega 64 Game Benchmarks

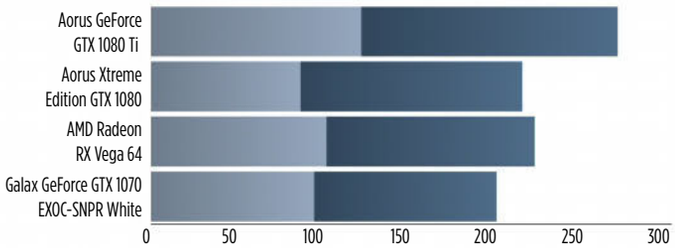
Ghost Recon: Wildlands

1920 X 1080, ULTRA DETAIL — Min FPS, Avg FPS



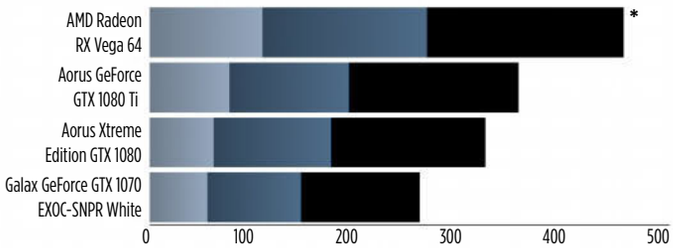
Total War: Warhammer

ULTRA DETAIL, 1920 X 1080 — Min FPS, Avg FPS



Rise of the Tomb Raider - Geothermal Valley

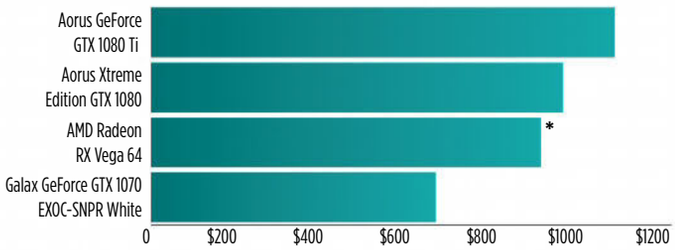
HIGHEST DETAIL, 1080P, PUREHAIR DISABLED — Min FPS, Avg FPS, Overall Avg



* Fan noise: 57dB

Price

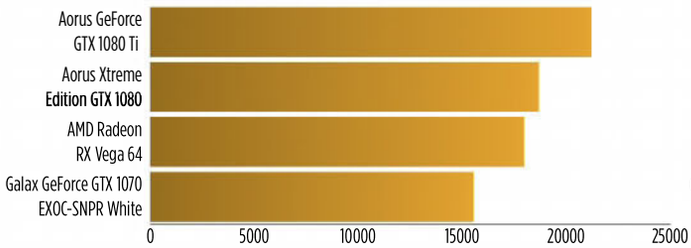
CUSTOM SETTINGS, 1024 X 768, HIGHER IS BETTER — Avg FPS



* AMD has guaranteed prices will hit $699 as more stock arrives.

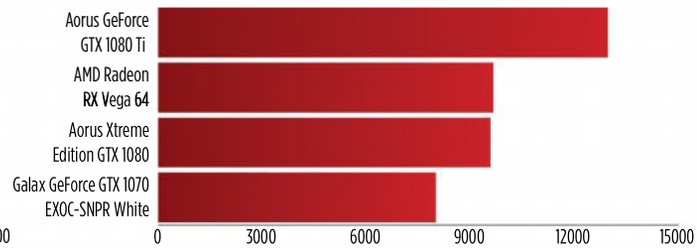
3DMark Fire Strike

1920 X 1080, HIGHER IS BETTER — Score



3DMark Fire Strike Extreme

2560 X 1440, HIGHER IS BETTER — Score



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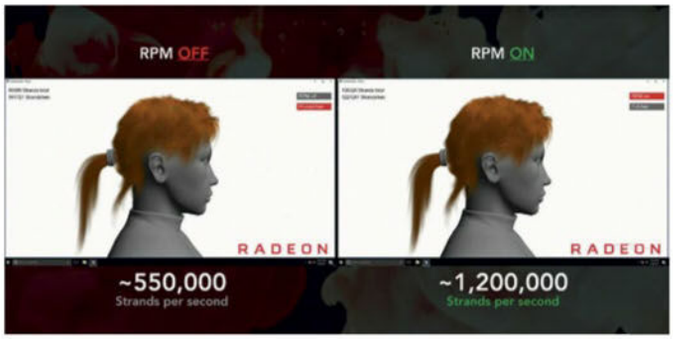
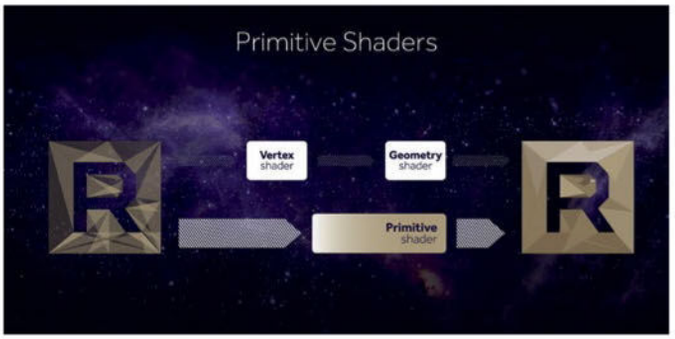


▲ **RPM stands for Rapid Packed Math, which is a good description of our studying technique.**

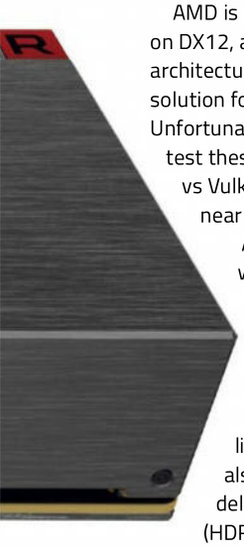


▲ **This thorough diagram explains everything you need to know about shaders.**

memory faster is a good thing, especially as today's games require so much more memory. For example, AMD showed that The Witcher 3 allocates three times the data that is being used on the GPU. The HBM 2.0 is also a major improvement, offering up to eight times the performance of HBM 1.0, and capacities of up to 32GB (HBM 1.0 was limited to just 4GB).

RX Vega also introduces a new programmable geometry pipeline. Recently, game devs have been relying on the shader pipeline to handle geometry shaders, but it's not the most efficient way to do the job. Consider how rendering a scene works; the game engine has to render every single polygon in that scene. However, sometimes only 1% of those are actually viewable to the player, as the other polygons may be hidden behind other polygons. This is why RX Vega now has a programmable geometry pipeline, which AMD claims offers up to twice the throughput per clock of previous designs.

AMD is well known for its focus on DX12, and claims the RX Vega architecture is the most complete solution for DX12 on the market. Unfortunately we didn't have time to test these claims, but look for a DX12 vs Vulkan vs DX11 article in the near future.



As for outputs, AMD has gone with its usual design – triple DisplayPort 1.4 ports and a single HDMI 2.0b. There's no sign of a DVI-I output this time around though, but we expect vendors will likely add this. FreeSynch 2.0 is also included, which focuses on delivering High Dynamic Range (HDR) colour at a lower latency.

As for the cooler included on the AMD edition card we were sent, to be frank we were a little disappointed. Considering it's got so much heat to move around, a single fan blower design is a bit underwhelming. No wonder it hit 56dB during our game tests, but again we can look forward to third-party manufacturers releasing much more exotic cooling solutions with multiple fans. It also supports AMD's new Radeon Software Crimson ReLive software for overclocking, but early results have shown that despite an extra 100MHz or two can be gained, it has very little impact on games. We can't wait to see if the RX Vega 56 changes that.

> "the card is extremely loud under load, so you'll definitely hear it when installed"

PERFORMANCE MATTERS

On to the bit you care most about – performance. We tested in our stock testbench, an Asus Maximus VIII Hero with Intel Core i7-7700K and 2 x 8GB DDR4-2666MHz of Ballistic memory. However, we used an AMD supplied PSU rated to handle 1250W, but stuck with our usual array of three SSDs for the OS and benchmarks. We ensured that all competing cards were downclocked to Nvidia's default speeds.

As you can see from our new benchmark suite, unfortunately the RX Vega 64 lost out to the GeForce GTX 1080, but not by a huge margin. It did however wipe the floor with all cards in the Rise of the Tomb Raider test, which is known to like AMD products. When compared against the 1080 Ti there's simply no competition, but they're in different price ranges. As mentioned, the card is extremely loud under load, so you'll definitely hear it when installed in your system.

▲ **The air cooled version is almost as power hungry.**

NO VICTORY TO RX VEGA

It's great to see AMD come so close to the GTX 1080, yet a little sad that it can't beat a year-old product. There's also the issue of power consumption and noise, which can't be ignored in this day and age of power efficiency and silent systems. Finally, at the time of print, the pricing was simply insane. AMD has promised this will be resolved with the next shipment, dropping to the RRP of $699, so we'll just have to take their word for it.

It'll be interesting to see what the third parties can do with this card. Whack a better cooler on and it should allow for better overclocks, which could see it beat the GeForce GTX 1080. Until then, it's a case of close, but no cigar. PC

+
- Close to GTX 1080 performance
- Should do well with DX12

-
- Not quite as fast as GTX 1080
- Super power hungry
- Shocking street price

VERDICT:

Sadly the Vega RX 64 doesn't quite beat the GTX 1080, and comes with some huge power needs in the process.

8

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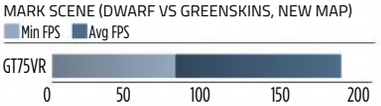
Benchmarks

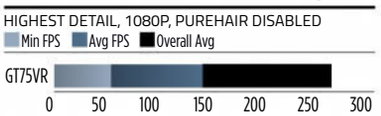
Total War: Warhammer

ULTRA DETAIL, 1920 X 1080, BRAND NEW BENCHMARK SCENE (DWARF VS GREENSKINS, NEW MAP)



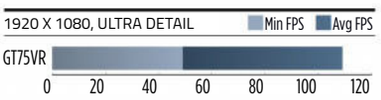
Tomb Raider - Geothermal Valley

HIGHEST DETAIL, 1080P, PUREHAIR DISABLED



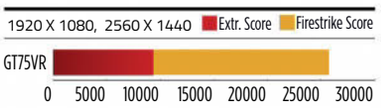
Ghost Recon : Wildlands

1920 X 1080, ULTRA DETAIL



3DMark Fire Strike & Extreme

1920 X 1080, 2560 X 1440



LAPTOP

GT75VR 7RE Titan – 018AU

Immovable object

PRICE $3799
www.msi.com

This is a rather unique review for us, as the unit supplied isn't the one that is currently available. The existing MSI GT75VR on the market is equipped with a GeForce GTX 1070, while our review sample comes with a GTX 1080. Thankfully the name should change – the 1070 equipped version is the GT75VR 7RE Titan – 018AU, while the 1080 equipped version will be known as the GT75VR 7RF Titan, and is due for release in late 2017 at $5199.

As a result, our benchmarks don't really indicate the true speed of the $3799 GT75VR 7RE Titan – 018AU; you can expect performance to drop by around 20 to 30%. Other than the GPU though, the rest appears to be identical. This is a true gaming laptop, tipping the scales at a back-breaking 4.4kg, and that's without the huge power brick.

It's got a full 17.3-inch HD 1920 x 1080 display, which comes with both a 120Hz refresh rate and Nvidia G-Sync. It's a stunner of a screen, and is exceptionally bright; we had to lower the brightness a little so it wasn't quite so blinding. The keyboard is made by SteelSeries, and it's a real winner when it comes to how it feels. It's definitely got the look of a gaming machine, and the Steel Series keyboard has per-key RGB lighting. Our review sample came with a twin Samsung M.2 SSDs setup in RAID 0 mode, for a total capacity of 475GB. Backing this up is a huge 1TB 7200RPM mechanical HDD. Finally, an i7-7820HK CPU handles processing duties.

Thanks to its chunky dimensions (426mm x 314mm x 56mm), there's plenty of room for I/O ports. In total there's five USB 3.0 Type A, one Thunderbolt 3 Type C, an SD card reader,

HDMI out, mini DP out, mic in and audio out. Streamers will appreciate the extra audio in and out ports. This model comes with 32GB of DDR4-2400MHz of memory, while Killer supplies both Ethernet and Wi-Fi networking, with its Killer DoubleShot with Killer Shield tech.

In terms of performance, it's hard to say where this machine stands; as mentioned, our unit came with a 1080, while the retail unit has a 1070. As such, we'd round the results down by about 30%, which seems to be the average difference between a 1070 and 1080. Given the high-end hardware, we weren't surprised to see the 112 minute battery life during our PCMark 8 Home Accelerated battery test.

> "given the hardware, we weren't surprised to see the 112 minute battery life"

When measured against other laptops in the same range, MSI has delivered a behemoth that stands up well against the competition, slightly outdoing the likes of the Gigabyte Aorus X5 v7. Don't expect to move it around much due to the weight, but if you're looking for a powerful, full-sized gaming laptop, this will fit the bill nicely. *BENNETT RING* PC

+
- Twin M.2 in RAID 0
- Very quiet cooling
- Beautiful screen

-
- Confusing launch with GPU mix-up

VERDICT:

MSI has stacked this 4.4kg slab to the brim with the best of the best.

PC PowerPlay POWER AWARD

9

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MOBO

Asus ROG Zenith Extreme

Threadripper rips apart your wallet

PRICE $879
www.asus.com.au

When we tested the Threadripper this month, it came with the Asus X399-powered Zenith Extreme. We were kind of expecting a slightly more affordable than Intel's X99 platform for its Xeon processors, but it wasn't to be. Having said that, the Zenith Extreme has every feature a professional user could ask for, where these kinds of prices aren't crazy.

Obviously it comes with the new TR4 socket and X399 chipset required for Threadripper. It also ships with *eight* memory channels, supporting up to 128GB of DDR4. The speeds supported change depending on how much memory you use though, from 2133MHz all the way up to 3600MHz. The beauty of this is that it can support ECC memory, a feature not found on Intel's consumer boards.

With up to 60 usable PCIe 3.0 lanes, there are dozens of different ways they can be configured. This also means it can support quad Quadro or Tesla drives if you so desire, which can make a huge performance difference in 3D rendering or data manipulation. There are also six SATA 3 ports, which support RAID 0, 1 and 10. More importantly, it has three M.2 slots, one of which is under a thick heatsink. However, we found the screws to this to be absolutely tiny, and it was very easy to round the head. The third mounting peg actually came loose from the board while we tried to unscrew it, but it was rock-hard once we'd screwed it back in place. A special DIMM.2 mount is also included with a fan bracket that fits into one of the PCIe lanes. This allows you to mount your M.2 drive along with a fan in the special bracket. Speaking of PCIe lanes, there are six in total, four full length PCIe x16, one x4 and one x1.

There's also a U.2 connector if you're one of the few to use these drives. Tweakers will love the onboard power, reset, slow mode, clear CMOS and BIOS backflash buttons. When it comes to networking, the Zenith offers the very latest in 10Gbps Ethernet, along with 4.6Gbps of WiFi. This includes the latest 802.11ad Wi-Fi, which is designed for speeds of up to 4.6Gbps per second but only at a range of a few metres. An add-on card is also included to merge the Wi-Fi and Ethernet connections. Build quality throughout is spectacular, with only the highest quality components and an upgraded power phase system.

If you don't mind paying a rather hefty fee, this is going to be one of the finest X399 motherboards on the market,

> "build quality throughout is spectacular, with only the highest quality components"

packed to the rafters with everything a workstation or overclocker could need. It's overkill for most gamers, but that's not really the intended audience.
BENNETT RING PC

+
- 60 PCIe 3.0 lanes
- M.2 cooling
- 802.11ad

-
- Very expensive

VERDICT:
The ROG Zenith Extreme will likely prove popular with professionals and expert overclockers.

PC PowerPlay POWER AWARD **9**

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NETWORKING

Asus ROG Rapture GT-AC5300 gaming router

Taking networking to the next level

PRICE $695
www.asus.com.au

Asus' Republic of Gamers team aren't known for doing things by halves. And with the release of this router, they've really outdone themselves. Sure, it's crazy expensive, but it's built with so much bandwidth and future-looking technologies that this router is going to last you several years at least.

First, there's the fact it's a tri-band router. The 2.4GHz network runs at 1000Mbps, while the twin 5GHz networks run at 2167MHz each, hence the AC5300 designation, which is the total of all three networks. It's also fully MIMO ready, unlike many routers which are currently being sold as "MIMO support in future firmware updates".

Looking like a robotic spider with eight different antennae, the internal configuration is a 4x4 transmit/radio configuration. There's also eight different Gigabit Ethernet ports, along with twin USB 3.0 ports. These can be used to connect an external hard drive, turning this device into a NAS, or a printer, making it a centralised print server. Two of the Ethernet ports can be connected via Link Aggregation to double the speed to a PC equipped with similar tech.

The main CPU in use is the Broadcom BCM4908 64 bit quad-core, which churns along at 1.8 GHz. This is backed up by a huge 1024MB of RAM, along with another 256MB of Flash memory. The 2.4GHz network is supplied by the BCM4366E 4x4 2.4/5G single chip 802.11ac SoC, while each 5GHz network is powered by the new BCM4366E 4x4 2.4/5G single chip 802.11ac SoC.

As a gaming router, detailed Quality of Service features are included to prioritise games and streaming, but these can be altered manually by the incredibly deep user interface. While it's easy enough to setup, there are hundreds of options for networking nerds to really tweak this router to their delight.

One final call-out is the inclusion of AiProtection, which would normally set you back $300 alone at JB Hi-Fi. Asus has included this three-pronged method of virus protection, originally created by Trend Micro, as part of the package. This works in three ways; firstly it scans your router for any loopholes or weak settings, and encourages changing these. Then it uses Trend Microsoft's WRS and DPI protection to ensure no nasty packets are making their way into your network. Finally, it uses mitigation to detect if your PC has been infected with zombie-ware, by collecting a log of connections to these hostile servers.

We copied a 1GB file to a laptop at a range of about ten metres, with a concrete wall in the way. On the 2.4GHz spectrum we measured 632Mbps down, 415 up. On the 5GHz network we measured 925Mbps down, and 917Mbps up, making this one of the fastest damn routers we've ever tested.

> there are hundreds of options for networking nerds to really tweak this router to their delight

If you want the very best, and can afford it, this router comes highly recommended. We'd probably suggest it more for network aficionados, but even novices will be able to make the most of its benefits. *BENNETT RING* PC

+
- Incredible speeds
- MIMO ready
- AiProtection

-
- Very expensive
- Not exactly subtle design

VERDICT:

Looking for a router that does it all, and will support future technologies for years to come? If you can afford it, you've just found it.

PC PowerPlay POWER AWARD **10**

WorldMags.net

AUDIO

Tt Esports Shock Pro gaming headset

Punching above its weight

PRICE $79
au.ttesports.com

We weren't particular fans of the last Tt Esports headset we looked at. The Cronos Riing 7.1 had good stereo performance but we found it heavy, uncomfortable and severely lacking when it came to the 7.1 performance. The Shock Pro RGB headset is a budget headset with a street price around $80, and for our money it runs riings (sorry) around the more expensive headset. It sounds great in stereo, is very comfortable and overall feels more robustly made than the more expensive Cronos Riing.

A sprung metal headband makes for a good clamp around the ears and a combination of thickly padded earcups (25mm of padding on each cup) and simple headstrap make for a very comfortable fit. Each of the earcups houses a 40mm driver capable of putting out some very decent stereo sound. While not the best stereo performance you'll hear, for the price they do a very good job, with clear mids and highs with a slightly lacklustre bass. The fold away mic is discrete but unspectacular. On ear controls for volume, mic and RGB lighting are a nice touch.

The biggest problems with the Shock Pro headset come from the addition of the RGB. It's unspectacular and limited, with only 256 colours, seven preset colours and two lighting modes, but because of the inclusion, the headset needs a USB connection in addition to the standard 3.5mm connectors for headset and mic. In our testing the headset wouldn't work through USB alone. It makes for an unwieldy connection and even though the headset is spruiked for mobile usage, makes that possibility more of a hassle than it's worth.
DANIEL WILKS PC

+ Comfortable Sturdy Good audio	VERDICT: **A genuinely good budget headset let down by the connection and lacklustre RGB.**
- Average mic Poor RGB Too many connectors	**8**

AUDIO

Corsair Void Pro RGB Wireless headset

Surprising

PRICE $219
www.corsair.com

When you first pull it out of the box, the Void Pro headset feels pretty heavy, and the padding on the headband seems entirely inadequate for the job of making the headset sit comfortably on your head. You couldn't be more wrong. The fit of the Void Pro is excellent, with the weight distributed comfortably across the front of the head and the well-padded earcups sitting flush over your ears. Each of the earcups hosts a big, clear 50mm neodymium driver capable of pumping out some serious volume with excellent clarity in stereo. The Void Pro also boasts Dolby Headphone 7.1, and the results are pleasantly surprising. The headset offers some good spatial sound with identifiable directionality. The quality of sound is impacted a little by the switch to 7.1, with the bass and treble not being quite as defined as they are in stereo, but other than that it's some pretty impressive virtual 7.1.

Wireless connection is a breeze, with the headset automatically connecting to the dongle when you press the power button. Two buttons and a clickable toggle on the left earcup control power, mic muting, volume, EQ presets and switching virtual 7.1 on and off. For the most part the controls work quite well, but the fact that the toggle must be clicked in for up to .5 seconds to switch EQ and .6 seconds or more for 7.1 can lead to some problems. The fit, while comfortable, doesn't offer a good clamp, so there is quite a fair bit of sound leakage.
DANIEL WILKS PC

+ Comfortable Excellent clarity Wireless	VERDICT: **An excellent headset with great sound quality if you don't mind the excessive leakage**
- Serious sound leakage	**8**

WorldMags.net

INPUT

Omen 1100 Keyboard

We gotta bad feeling about this

PRICE $149.95
www.hp.com

Kailh switches are pretty common in peripherals nowadays and it's becoming progressively more difficult to tell the difference between original Cherry MX switches and Kailh switches of the same colour. The HP Omen 1100 is the first keyboard we've seen from a big manufacturer to feature Greetech keys. Much like Kailh, Greetech makes mechanical switches that emulate Cherry MX switches, but in the case of the blue switches used in the 1100, the difference between the Cherry originals and the Greetech switches is marked. The switches are tactile and clicky, but don't have the solid feel of the Cherry Blues. The keys feel wobbly, a little squishy and generally a little slow. They are also louder than the Cherry counterparts. We couldn't fully test for hysteresis, but anecdotally there definitely seemed to be lag between actuation and reset when double tapping keys. It's not particularly pleasant to use as a result. The choice of switch is unfortunate as the keyboard is otherwise solidly put together.

While not the most expensive keyboard on the market, the Omen 1100 is still seriously overpriced when compared to other keyboards in the same bracket, such as the excellent HyperX Alloy Pro (reviewed opposite), a keyboard with genuine Cherry switches, AV controls and a USB passthrough, three features the 1100 lacks. For their first Omen gaming keyboard, HP have failed to impress, but given the quality of their first mouse and how impressed we've been with their new range of hardware, we expect the next keyboard to be a lot better. *DANIEL WILKS* PC

+ Looks nice Decent lighting	VERDICT: **Bad mechanical switches lead to an unpleasant feeling keyboard.**
- Loud Wobbly Squishy	**5**

INPUT

Omen 600 Mouse

This augurs better

PRICE $89.95
www.hp.com

The Omen 600 gaming mouse features everything you would expect from an entry level gaming mouse. It has an optical sensor capable of far more DPI than most gamers will ever use, textured side grips and six buttons in a pleasantly straightforward package. By the time of writing we were not able to confirm whether or not the optical sensor is a proprietary HP developed unit or one of the core common sensors seen in other mice, but ultimately that doesn't matter too much. It's a good sensor that provides all the accuracy and speed you could want, and the DPI switcher features 12 levels (each of which of course have an associated colour), rather than the more common four, so there is a lot of possible customisation. Speaking of which, the mouse also features three removable five gram weights if you want to tweak the feel. Oddly, the mouse features five slots for weights but only comes with three.

The left and right buttons are firm and offer a satisfying click and the two thumb are well situated. Likewise the scroll wheel has some nice resistance to it. The gentle curve of the shell is comfortable as well. The only thing that stands against the Omen 600 is that it is a little too bare bones for the price range. At $89.95, the Omen 600 sits alongside mice with full RGB lighting, comparable sensors and programmable macros, or around $10-$30 more than other bare bones gaming mice. *DANIEL WILKS* PC

+ Comfortable Fast Accurate	VERDICT: **An excellent bare bones mouse hampered by its price tag.**
- Too pricey for the features	**8**

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ARSEWARE

Corsair T1 Race Gaming Chair

Quite good for bums

PRICE $499
www.corsair.com

Let us put aside the notion that gaming chairs bring anything of actual specific gaming benefit to gaming. For they do not. We often muse, here in the office, of the many features a gaming chair designed for gaming would have. Such as armrests that support or even work as mouse pads, armrests that secure HOTAS joysticks, perhaps AV-in at the base and out near the headrest, and ideally, chairs without wheels that shift your position in relation to the desk based on your Newtonian-driven controller inputs.

No, gaming chairs are just good chairs to sit on, and feel good about yourself because they look fantastic. There is scant little in the middle ground between a shit Officeworks chair and a $1,200 Aeron. Gaming chairs fill this void.

The Corsair is a little harder in the cushioning than some. I personally like that. It is reasonably priced, though sitting a tad at the high end of the non-leather spectrum. Its arm rests adjust further down than most, which is nice for orangutan-arms like mine, but the chair itself does not raise as high as most, so for short-arses it is a poor choice.

Most notable are its wheels, being the single differentiating factor. They are of the rollerblade variety. They are slippery across any surface, and ideal for office chair racing. They won't bugger your carpet as quickly as others. They will however, happily slide the chair – and you - backwards at the slightest push of your racing pedals or brakes, separating you from your desk and game controls at a critical moment, and making the 'Race' moniker a contradiction.

It is a nice chair though. *BEN MANSILL* PC

+	• Speed wheels go fast in chair races • Arm-rests go low
-	• Speed wheels make you fly away from your desk

VERDICT:
Fantastic to look at, quite nice to sit on, irrelevant to gaming.

7

INPUT

HyperX Alloy Elite

Quite good for wrists

PRICE $149.95
www.hyperXgaming.com

It's no secret we were big fans of the original, delightfully minimalist HyperX Alloy keyboard. As a first attempt by a first time peripheral maker, it was a near complete success. At the time we said we were looking forward to what the company had in store next. Well, the Alloy Elite is the answer, a keyboard that doesn't sacrifice quality components and design to remain at a fairly budget price point. The full sized keyboard isn't as sleek as the Alloy but it's as solidly built with no bounce or flex at all. Like the Alloy, the Elite uses real Cherry MX switches – red, brown or blue - but also adds some new, dedicated controls to the mix. To the top left of the keyboard are buttons for turning the red backlighting on and (preferably) off, changing the lighting between six different presets, and a game mode button that disables the Windows keys. To the top right are dedicated media controls and a volume roller. A large, comfortable wrist rest rounds out the package. There are a few niggles with the Elite that stop it from being all but perfect. The lighting is pretty naff outside of simply having a general red backlight, and the braided cord is thick and overly still, leading to some awkward spaghetti. Ultimately though, these are small annoyances when compared to how well made the Elite is, and what a pleasure it is to use. HyperX is quickly becoming one of our favourite budget Cherry keyboard makers. *DANIEL WILKS* PC

+	• Solid build • Cherry switches • Media controls
-	• Thick cable • Iffy backlighting

VERDICT:
An excellent, well-built keyboard with features you won't find in most similarly priced keyboards.

9

PC PowerPlay SMART BUY

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HOTWARE 266
with Terrence Jarrad

01 Smart Boy

$89.99 ▪ MightyApe
www.mightyape.com.au

Connect to an Android phone (preferably a Samsung S8), plug in a cartridge, and relive the gaming glory of the '90s, all thanks to Hyperkin.

POWERED UP: Uses real GameBoy and GameBoy Colour cartridges, displaying the output on your phone, but with chunky GameBoy casing, D-Pad, and buttons. The unit is powered from the phone's battery as well which saves you carrying more weight than you have to for your retro gaming fix.

PLAYED OUT: One of those things that's probably cooler in concept than reality, unless you happen to have a bunch of cartridges lying around, nothing to play them on, and a burning desire to do so.

02 Datorbox

$3200 ▪ Love Hulten
www.lovehulten.com

You have to love Love Hulten: his work is always exquisite, and this compact gaming system is no exception.

POWERED UP: Beautiful retro design, handmade in Sweden, NVIDIA 1060 GPU, a choice of i5 or i7 CPU, and 128 or 256GB SSD (depending on whether you go standard or deluxe edition)+ 1TBHDD, and custom colour finish options.

PLAYED OUT: Limited to 50 pieces and priced accordingly.

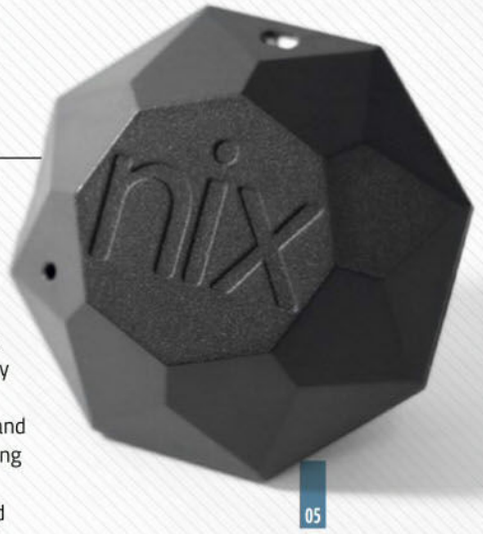
03 Z VR Backpack

$4200 ▪ HP
www.hp.com

Designed by HP for VR situations where cables are a hindrance (i.e. all of them) this portable PC is ready to move, and can be docked to become a workstation.

POWERED UP: Up to 32GB RAM, Core i7 vPro CPU, NVIDIA Quadro P5200.

PLAYED OUT: I've heard of WEARABLE COMPUTING but this is ridiculous! (audience laughter). Well that's one way to HARNESS computational power!! (hysterical audience laughter). What? Intel Inside... OUTSIDE?!? (audience now in tears). Now I can take a PCI BUS on THE BUS!!!!! (editor now in tears) *(You're fired, Terry - Ed.)*



04 Token Smart Ring

$350 ▪ Token
tokenize.com

Three keys for those with no smart-home yet, seven credit cards for the indebted with limits blown, nine passwords mortal men are doomed to forget, one ring for the huge geek on their throne.

POWERED UP: Replace access cards, credit cards, transit cards, car keys, house keys, computer passwords – store them all in one Bluetooth/ NFC device, with fingerprint security to activate, and sensors to detect removal.

PLAYED OUT: "One ring to access everything". You can just FEEL how mad Token is about being told by its lawyers that they couldn't use "one ring to rule them all". Currently sold out.

05 Nix Mini Colour Sensor

$120 ▪ Nix
nixmini.com

Do you do a lot of colour matching? Okay, well how about *some* colour matching? Look work with us here: consider you were in a situation where you had to get some paint to match your wall or your couch or something. Great! This will help! (You people are a lot of work sometimes.)

POWERED UP: Instant match to over 10,000 paints, as well as RGB, HTML, CMYK and LAB colours. Is about the size of a golf ball, so extremely portable. Over 5000 scans per battery charge!

PLAYED OUT: Probably excellent if you are a professional painter, and a questionable use of money otherwise.

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Steam Controller
$89.95 *store.steampowered.com*
There's a bit of a learning curve, but it's great for couch gaming

MODEM ROUTERS

For all rational budgets

BUDGET

TP-Link VR600
$179 *tp-link.com*
Not the fastest, but it's stable, well priced and feature packed. ADSL modem built in

Synology Router RT1900ac
$199 *synology.com*
No built-in ADSL modem, but it's fast and has the best interface around

PREMIUM

Asus ROG Rapture GT-AC5300 Gaming Router
$695 *asus.com.au*
Super fast and future proof, this is a gaming router that takes no prisoners and offers no compromise.

LAPTOPS

Gaming on the go

BUDGET

Gigabyte P55W v5
$2099 *gigabyte.com.au*
If you want real gaming performance in a laptop, $2k is where it starts

PREMIUM

Metabox Prime-X
$6899 *metabox.com.au*
The fastest laptop around costs big

MINI

For lounge room gaming and streaming

CPU + COOLING
Intel Core i5 7500 w/ stock cooler
$254
intel.com

MOBO
ASRock Z270M-ITX/AC Motherboard
$200
asrock.com.au

GPU
Asus DUAL-RX480-4G
$338
asus.com.au

MEMORY
16GB DDR4 Corsair Vengeance LPX Low Profile$185
corsair.com/en-au

STORAGE
Samsung SSD M.2 2280 NVMe 250G 960 EVO + 2TB HDD (any)
$178 + $50 *samsung.com/au*

CASE
Fractal Design Define S Nano
$115
fractal-design.com

PSU
SilverStone SFX Gold 500W SX500-LG
$110
Silverstone.com

SOUND
Your sound system
What you paid for it

DISPLAY
Your TV
What you paid for it

KEYBOARD
Roccat Sova
$299
www.roccat.org

MOUSE
Roccat Kone EMP
$99
www.roccat.org

TOTAL: **$1833**

BUDGET

The perfect entry-level gaming PC

CPU + COOLING
Intel Core i5 7500 w/ stock cooler
$254
intel.com

MOBO
ASRock B250 Gaming K4 Motherboard
$150
asrock.com.au

GPU
Gigabyte RX480G1-GAMING-4GD
$279
gigabyte.com.au

MEMORY
G.Skill Ripjaws 4 DDR4 2400MHz 16GB Kit 2x 8GB
$135 *gskill.com*

STORAGE
2TB HDD (any)
$50 *www.staticice.com.au*

CASE
Corsair Carbide SPEC-02 Mid Tower Gaming Case
$70 *corsair.com/en-au*

PSU
SilverStone Strider Essential 500W ST50F-ESB $55
Silverstone.com

SOUND
Cougar Immersa
$59
cougargaming.com

DISPLAY
AOC e2450Swh
$158
aocmonitorap.com/anz

KEYBOARD
Tesoro Tizona G2N
$55
tesorotec.com

MOUSE
Rapoo V20 Optical Gaming Mouse
$35
rapoo.com

TOTAL: **$1300**

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Wireless-AC5300
Tri-Band Gigabit Router

Unfortunately this first shipment of the Vega cards has priced them too high to be of much worth to our performance build, but AMD has stated that the next shipment should see a $200 price drop, so we could be looking at 1080 power at 1070 prices.

PERFORMANCE

Most bells and whistles, without breaking the bank

CPU + COOLING
Intel Core i7 7700K with Noctua NH-D15 CPU Cooler
$459 + $120 *intel.com*

MOBO
MSI Z270 XPOWER Gaming Titanium Motherboard
$510
msi.com

GPU
Galax GTX 1070 EXOC Sniper White 8Gb
$575
asus.com.au

MEMORY
G.Skill RIPJAWS 4 32GB KIT 4X8GB
$289
gskill.com

STORAGE
2TB HDD (any) + SAMSUNG 500GB M.2 NVMe SSD 960 EVO
$375
samsung.com/au

CASE
Corsair Graphite 760T Full Tower Case Black
$220
corsair.com/en-au

PSU
Be Quiet! Dark Power Pro 11 850W Power Supply
$260
bequiet.com

SOUND
Sennheiser PC 373D
$329
en-au.sennheiser.com

DISPLAY
Acer Predator XB271HU
$979
acerstore.com.au

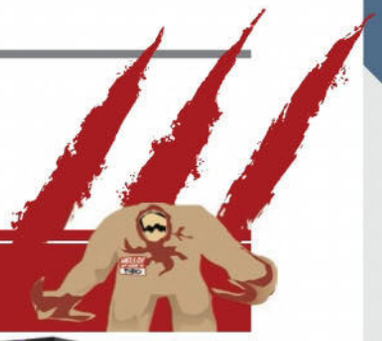
KEYBOARD
HyperX Alloy Elite
$149
www.hyperxgaming.com

MOUSE
Corsair Glaive
$109
www.corsair.com

TOTAL: **$4374**

THE BEAST

When overkill is barely enough...



CPU + COOLING
i9-7900X + Corsair H105
$1530 + $145
coolermaster.com

MOBO
MSI X299 Carbon Pro Gaming AC
$569
msi.com

VIDEO
MSI Lightning GeForce GTX1080 Ti
$1499
msi.com.au

MEMORY
2 x 16GB Corsair Vengeance LPX DDR4 3000
$318
corsair.com/en-au

STORAGE
Samsung 960 Pro 2TB + Seagate Barracuda Pro 10TB
$1649 + $699
samsung.com/au

CASE
CoolerMaster Cosmos II 25th Anniversary Edition
$449
coolermaster.com

PSU
Corsair RM1000i Special Edition
$205
corsair.com/en-au

SOUND
Astro A50
$469
www.astrogaming.com

DISPLAY
Asus ROG Swift PG27AQ
$1349
asus.com.au

KEYBOARD
Corsair K95 Platinum RGB
$349
corsair.com/en-au/

MOUSE
Razer Deathadder Elite
$99.95
razerzone.com/au-en/

TOTAL: **$9329.95**

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MA/PCD266

Minecraft 1.12.1

Some of us were perfectly happy playing by ourselves, actually

When Microsoft bought Minecraft for a brain-melting US$2.5 billion back in 2014, it seemed pretty obvious the code-monster from Redmond was getting a hell of a deal. But what it actually got at the time was a mess.

To be fair, from 2011 until 2016, Mojang found itself virtually drowning under an increasingly powerful cataract of pure cash. A gang of indie devs who wanted nothing more than to fiddle with their biome generation algorithms were instead having to deal with what must have felt like an endless series of ports to other platforms. Everyone (except Nintendo) wanted a piece of Minecraft, and by the time Microsoft came along, there was a Pocket Edition for mobiles and tablets, an Xbox edition, and a PlayStation edition. And all of them were slightly different.

And at first it seemed Microsoft was just adding to the problem, by creating the Windows 10 Edition of Minecraft. It was Minecraft, on PC, but it wasn't the PC edition. Wait, what?

Three years later, we finally see the method behind this madness. While classic Minecraft trundled along with Mojang at the helm, getting core updates and being mercilessly pulled apart and forced to do weird tricks by modders (and especially by the third party multiplayer servers CraftBukkit and later Spigot), Minecraft Windows 10 Edition was quietly giving the game a serious rebuild.

A new renderer, called the Bedrock Engine, is much faster than the (unmodded) legacy Java client, especially when it comes to loading new "chunks" of the world as the player moves about. Bedrock supposedly has a bunch of mod and plugin support baked right into its heart - yet to be demonstrated - but most astonishingly of all, it offers simultaneous crossplay on PC, Xbox, mobile and Nintendo Switch. Yes, Nintendo. It's a Microsoft product... and it's *platform agnostic*.

They say your Minecraft world is a reflection of your soul. Here's Fordham's.

WHY SHOULD I CARE?

+ You want to play videogames with your kids
+ You start every day by smashing an oak tree into planks with your fists
+ You want to wear a pumpkin to defeat an eldritch horror
+ You know diamonds can be found on layer 12

And as soon as this Better Together update rolls out, it will be the version that is simply called Minecraft. The PC edition, that started it all, the version that actually adds new mechanics to the game (instead of just a bunch of $1.99 skin packs) will be renamed Minecraft: Java Edition.

Why does this feel like a demotion?

The true faithful - and I'm not ashamed to say I'm one of them - have always been able to sort of ignore the non-core versions of Minecraft. Mere ports, they lagged behind the latest Java content updates, their redstone system was more basic, and players had limited access to the command line.

PC advantages go further: players can set up third-party servers, configure them with mods, and various options exist to boost the graphics with renderer optimisations and shader support. Hell, the console editions didn't even have *infinite worlds*!

Well, Bedrock makes infinite worlds possible, and it also makes it possible for players to set up their own servers... for a modest monthly fee. Minecraft Realms is a very easy system compared to other cloud-based custom multiplayer setups, but it's also quite restrictive. Eight bucks a month buys server support for ten friends, but mod options aren't open and they aren't free.

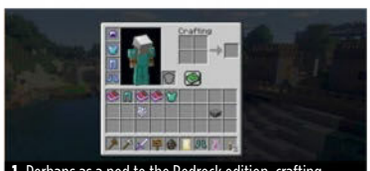
Look, we get it. Bedrock is Minecraft for the masses, and it consolidates all the different versions into one. It's the future of gaming, of course - one client, every platform (except PlayStation for some reason).

And the Java edition will keep on keeping on, at least for a few years yet. Yes, Java is fundamentally not awesome for high performance gaming, and the super-open nature of the application means it's likewise super-easy to crash the thing or run out of memory. Achieving a truly optimal setup is a fiddle.

But when you get that setup just

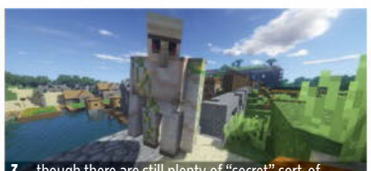
SEQUENCE

DAMNIT, I KNOW HOW TO MAKE AN AXE!



1. Perhaps as a nod to the Bedrock edition, crafting recipes can now be been seen in a recipe book.

2. This spoils the traditional word-of-mouth passing down of Minecraft lore...



3. ...though there are still plenty of "secret" sort-of-craftables to discover

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right, Minecraft remains one of the most convincing procedurally-generated environments in gaming today. Six years of subtle tweaks to its landscape generator have resulted in an algorithm that builds worlds that just feel like they could be real places. It's hard to describe. It's something about the scale - the relative height of the mountains to the distance of the horizon, that kind of thing.

Load up Sonic Ether's Unbelievable Shaders under the Optifine HD renderer, and Minecraft can be one of the best-looking-games in your collection. And if you have a 4K monitor it will bring your 1080 SLI rig to its knees.

Okay sure, some of that is Java overhead. But that's the price we pay for something unique - a game that is both supported by its devs AND fully open. Spigot plugin creators are even allowed to charge for their mods if they want, and in a non-Microsoft marketplace! How does THAT work?

And on top of all this, the game itself continues to offer a deceptively light RPG survival mode, that somehow manages to keep progression simple but also creates endless emergent gameplay moments. Whether it be desperately fleeing baby zombies as you try to reach a village just after sunset; or carefully digging down into the basement of a desert temple seeking loot but also knowing there's a block of TNT on a hair-trigger down there; or jumping through a portal into the Nether to farm Blazes for their Blaze Rods which create Blaze Powder that makes potion brewing possible...

> "yes, the game is at its best when multiplaying with a bunch of kids"

If you are a parent and you want your child to gain a thorough understanding of concepts like "versions" and server-side vs client-side content, or how resolution and post-processing affect framerate... hell, the concept of framerate itself and why it's important... then purchasing Minecraft should be mandatory. If you have more than one kid, buy them an account each. Trust me: it's more than worth it.

As for the lone gamer, consumer of AAA and defender of Indies, does Minecraft offer anything? I think so. Yes, the game is at its best when multiplaying with a bunch of kids, but even solo it can be sort of zen. To a Skyrim or Witcher 3 veteran, Minecraft offers an almost dreamlike pace. Graphical fidelity doesn't matter, only sense-of-place matters. Crafting is weirdly satisfying. There are only four tiers of weapons and two of them are useless, but it just doesn't matter (it's all about enchantments, anyway).

The most common complaint heard from the Minecraft-agnostic is "But what am I supposed to DO?" The answer remains what it has always been: you do whatever you want. Don't demand an adventure. Just be in the world, and the adventure will come. *ANTHONY FORDHAM* PC

MOD CRAFT

1. Optifine HD render mod + shaders. Note 12fps (this is 4K on a 1050ti)

2. The Structure Block allows copy/pasting of 32x32 selections.

3. Off-hand item holding combined with a mini map plugin.

4. Enchantments stack to provide sword variety - and you can script your own.

5. Potion brewing is deeper than you might think, and functions as a magic system.

6. Note missing horizon below. Java keeps the game open, but has its limitations.

OR TRY THIS:

MINECRAFT WINDOWS 10 EDITION
2015, MICROSOFT
- + Superior engine speed
- − Microtransaction-tacular

TERRARIA 1.3.5
2017, RE-LOGIC
- + So RPG. Much content
- − Zoomed-out view nerfed

STARBOUND
2016, CHUCKLEFISH
- + Epic scope, colony system
- − Can be grindy and samey

VERDICT:

Transcends evaluation and assessment. Minecraft cannot be critiqued. It simply is.

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Scary Monsters and Nice Sprites

Back in 1998, texture-mapped vector-based polygons were the new thing. FPS had them, and it was time for RTS to go "3D" too. Yet one company played it safe, released a sprite-based original-IP sci-fi game... and changed South Korea forever.

XENUS or BOILING POINT: STARCRAFT

DEVELOPER BLIZZARD
PERSONALITIES PERSONALITIES? BLIZZARD? HA!
RELEASED 1998
NUTSHELL Rather than build a resource-intensive, PC-thrashing 3D renderer, Blizzard pushed its sprite-based engine to the max, and focused on creating a three-faction, fast-paced RTS with almost perfect balance. This turned out to be a good decision.

He who hesitates is lost. This is the over-arching philosophy of StarCraft. Thanks to meticulous tweaking of build times, unit costs, unit speeds, firing rates, armour and more, StarCraft has become a game where decisiveness is as key to victory as a player's actions-per-minute.

This incredible attention to the ultra-fine element of balance means StarCraft can showcase player skill like almost no other strategy game, and that makes it a game that isn't just entertaining to play, it's also entertaining to watch. Compared to MOBA especially it's just... more impressive.

StarCraft wasn't developed with eSports in mind. How could it have been? Videogame-as-sport wasn't a thing. Yet serendipitously, Bizzard's obsession with balance positioned StarCraft in the right place, at the right time, to become a cultural phenomenon that would sweep an entire country.

First, the context. Back in 1998, RTS was a major genre for PC, and Westwood's Command & Conquer series was duking it out with Cavedog's Total Annihilation (a future Hagionaut trip) for top spot.

Various interlopers would pop up from time to time - notably Australia's own Auran with Dark Reign - but the genre was becoming more and more focused on two studios: Westwood, and Blizzard.

But before StarCraft, Blizzard was very much the underdog. Warcraft 2 (note the small C, ugh) was popular enough, but it was all weird and fantasy. Age of Empires was pretty big among "serious" gamers, and Total Annihilation required a $5000 PC to run at max settings. Yes, Westwood might have ruled, but it was a fractured kingdom.

When StarCraft came out, many reviewers were surprised that Blizzard had stuck with sprites. Total Annihilation's 3D renderer allowed for epic battles with dozens of units on screen at once... sure, they were all largely indistinguishable robots, and the game needed 24MB of RAM to run, but come on! 3D is the future!

StarCraft - in what became a Blizzard signature move - was built to run on (almost) any PC. Most games in the late

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'90s, you needed to squint at the "minimum requirements" on the bottom of the box before buying. But with StarCraft, unless you were still stuck with a 486, you could probably run it.

Not only that, sprites allowed Blizzard to design units that were visually distinct. The game has a very clear visual language. A glance, and you can tell what kind of battle group is rushing you, and what kind of threat it presents.

Beyond the visual, limiting multi-unit selections to just 12 units creates interesting strategic and tactical situations. It's probably StarCraft's most radical departure from standard RTS gameplay - but it's interesting how, even as some gamers are calling for the limit to be scrapped from StarCraft Remastered, others are calling for a limit to be ADDED to StarCraft 2!

So: sprites, selection limits, a resource system focused on rate of income rather than sending trucks into the wilderness to find ore, and three factions that all play quite differently while remaining incredibly precisely balanced. It was clear, after the shock of the "outdated" graphical system had worn off, that Blizzard had created something of a masterpiece...

But the feature that really made StarCraft's (and, before World of Warcraft, Blizzard's) fortune was Battle.net. An integrated multiplayer matchmaking system that used a direct internet connection to help players find and join games.

This aspect of the game, something we totally take for granted today, was radical. In 1998, "multiplayer" meant typing in IP addresses, or having to use weird third-party software that used TCP/IP to simulate an IPX network... or something. It was horrible.

Battle.net took all that and distilled it down to a few mouse-clicks. It was a stroke of genius, and at least a couple of years ahead of its time.

And yet, such is the pace of PC game development, StarCraft would have hung around for no more than the usual three of four years, were it not for the collapse of the South Korean economy...

Okay here's the equation: Economic downturn + government response to build fast broadband internet backbone + retirees with money but no guaranteed future income wanting to open small businesses + commoditisation of the X86-based PC = the sudden proliferation of "PC Bangs", or cybercafes. This then set up a second equation: PC Bang availability + young adults with not much else to do + limited selection of games + existing Korean taste for the design purity of Go = StarCraft becomes the RTS of choice.

And finally: Broad popularity of StarCraft + proven commercial viability of professional Go tournaments + multiple cable TV channels = televised, pro-league StarCraft.

The rest, as they say, is history. StarCraft isn't the greatest RTS of all time, but it is fundamentally entertaining to watch. And everything else aside, that's why as a spectator sport in Korea, it's as popular as televised Poker in the US.

By the time Blizzard got around to StarCraft 2, of course, the developer knew what was up. It drove a hard bargain with Korean cable networks - almost TOO hard - and built lots of shoutcast-specific tech into the game.

And indeed, StarCraft 2 did displace Brood War (StarCraft's fully-updated, expanded version) for several years. But now nostalgia is kicking in, StarCraft is back, and the graphically-crisp but gameplay-identical Remastered edition is here, to make Blizzard another grillion dollars. PC

> "it was clear, after the shock of the "outdated" graphical system had worn off, that Blizzard had created a masterpiece"

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Nazis, I Hate Those Guys

DANIEL WILKS spends one thousand words stating the obvious

The gaming world hasn't been the most welcoming place over the last few years. GamerGate left a toxic smear on the landscape that will probably never fully go away, with little pockets of hate popping up now and again to remind people that some gamers have a problem with women in general and anyone who thinks diversity might be a good thing in particular. The real world at the moment is horrible enough, without having some of that horror replicated in the virtual world through threats and abuse.

Discord is a third-party gaming chat client in which users can set up channels to facilitate in-game chat, messaging or even a virtual space in which to play tabletop roleplaying games online, thanks to dice rolling macros and the like. The channel-based nature of Discord, and users having to be invited by the creator of a channel, and the secure nature of the chat client, means that for the most part Discord is a safe and private service free of harassment. Mostly. Although there is no evidence that they harassed other users of the service, a number of servers and users identifying with white supremacist and Nazi ideologies were shut down in the wake of the Charlottesville "Unite the Right" rally and subsequent vehicular homicide. In a statement posted to Discord's official Twitter account. "We will continue to take action against white supremacy, Nazi ideology, and all forms of hate." People, of course, have countered that somehow not allowing the white supremacists to use the platform is censorship at best and fascism at worst, somehow equating opposing a hate group as being as bad as a hate group.

▼ Is Far Cry 5 using themes of race and religion as set dressing or commentary?

> Nazis have, since WWII, been the perfect villain for nearly all forms of entertainment

On the home front, the far right is becoming more vocal. In mid-August, the group Antipodean Resistance, a self-proclaimed Nazi organisation plastered two Melbourne high schools with posters calling for Australia to "keep Australia white", "stop the hordes" and even for the mass extermination of Jews. You'd think that such an act would get universal condemnation in Australia – if people get so up in arms about Safe Schools then they should be railing against actual goddamn Nazis calling for genocide – but sadly that isn't the case. In the comments section of the Herald Sun writeup of the event, the very first post by a man posting under the name Malcolm reads, "This could easily also be a staged incident by the left. They've done worse." A little later in the thread Paul writes, "Logical reaction to people being ignored on immigration and multiculturalism." Next up is Pete with, "What did anybody expect. The agendas of the left, PC and the like has changed this country forever, this country was never like the rest of the world, we were far enough and kept our identity and culture sacred, we are becoming no different to Germany or France. We couldn't leave well enough alone could we. I hope the left hacks are happy with the results. Western civilization and ---------- can't and will never co-exist, we have invited terror and hatred into our own backyard." There are more comments defending or excusing a Nazi organisation, but you don't really need to read more accusations of false flags, that calling for genocide or expelling non-whites is a logical reaction to multiculturalism. The fact that these posts were made at all speaks volumes.

Nazis have, since WWII, been the perfect villain for nearly all forms of entertainment due to the fact that the Nazi ideology is clearly evil and few people feel bad about shooting or punching them in the face. Unfortunately, not all people feel this way. When the second trailer for Wolfenstein II: The New Colossus was revealed, a number of brave warriors for the white race took to YouTube comments to complain about how it is an attack on white people and the good name of National Socialism. A few choice examples include Pepe Von Europa replying to another user talking about how he looked forward to killing as many Klansmen and Nazis as possible with, "One day I hope you wake up and understand that they are in fact the good guys and you have been lied to your entire life through massive propaganda campaigns and constant brainwashing techniques". Whether Pepe means that the Holocaust never happened or whether it was somehow justified is unclear, not that either option is less than odious. Steve Black didn't like the fact that one of the new characters introduced was a black woman. "This game looks like an SJW's wet dream. Fighting (actual) Nazis, black women being racist towards white people and an actual "resistance" that will probably succeed in this fictional world". Leaving aside the fact that the actual resistance succeeded in the very real world when actual real Nazis were being fought, one would hope that the heroes would somehow win in the game and not lose to Nazi invaders.

It could be argued that the word Nazi has lost meaning with Godwin's law, internet trolls and reactionaries of any political slant being all too willing to label people of opposing ideologies Nazis. There may be a kernel of truth to this but words still matter, and hate can't be tolerated. Nazis are for shooting, not for defending and certainly not for emulating. While I'm still perched atop my high horse and stating the obvious, marriage equality now, climate change is real and refugees should be cared for, not used as a political football. PC

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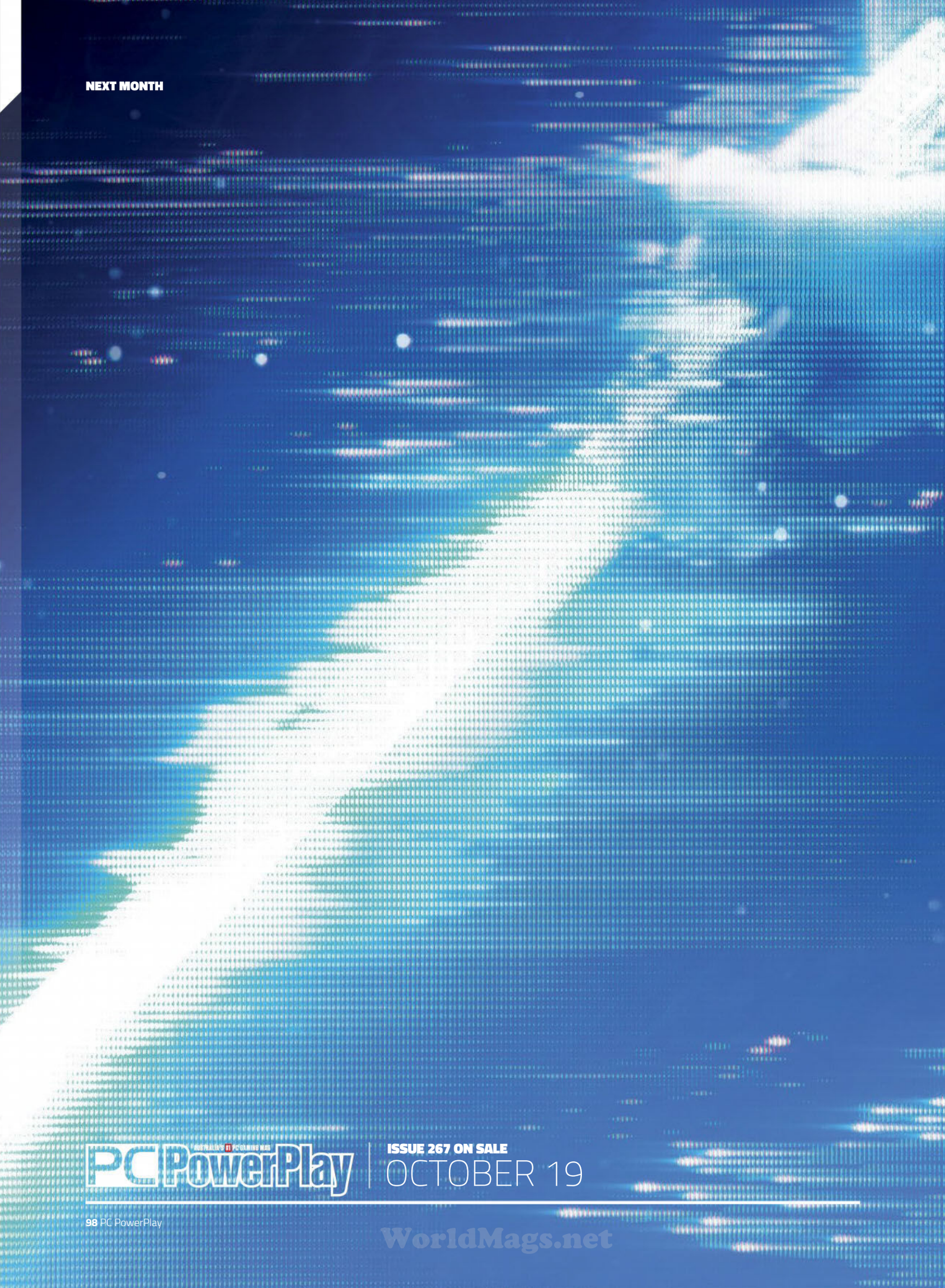

PC PowerPlay

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